



SAFETY DATA SHEET TETRANYL U

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

1.1. Product identifier

Product name TETRANYL U

Product number 51169

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

Identified uses Chemicals used in the synthesis and / or formulation of industrial products Consumer use.
Cosmetics perfumery Manufacture of substance Surfactant

1.3. Details of the supplier of the safety data sheet

Supplier Univar Solutions UK Ltd
Aquarius House
6 Mid Point Business Park
Bradford
BD3 7AY
+44 1274 267300
+44 1274 267306
SDS.EMEA@univarsolutions.com

1.4. Emergency telephone number

Emergency telephone SGS - +32 (0)3 575 55 55 (24h)

Sds No. 51169

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Skin Irrit. 2 - H315 Eye Dam. 1 - H318

Environmental hazards Aquatic Acute 1 - H400 Aquatic Chronic 2 - H411

2.2. Label elements

Hazard pictograms



Signal word Danger

Hazard statements
H315 Causes skin irritation.
H318 Causes serious eye damage.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

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Precautionary statements	P264 Wash skin thoroughly after handling. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P273 Avoid release to the environment. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P501 Dispose of contents/ container in accordance with local regulations.
Contains	TRIMETHYL-3-[(1-OXO-10-UNDECENYL)AMINO]PROPYLAMMONIUM METHYL SULPHATE

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB. The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

TRIMETHYL-3-[(1-OXO-10-UNDECENYL)AMINO]PROPYLAMMONIUM METHYL SULPHATE			≥35 - ≤50%
CAS number: 94313-91-4	EC number: 304-990-8	REACH registration number: 01-2120736263-59-XXXX	
M factor (Acute) = 10			
Acute Toxicity Estimate (oral):2350 mg/kg			
Acute Toxicity Estimate (dermal):> 2000 mg/kg			
Classification			
Skin Irrit. 2 - H315			
Eye Dam. 1 - H318			
Aquatic Acute 1 - H400			
Aquatic Chronic 2 - H411			

PROPAN-2-OL			≥1 - ≤2.5%
CAS number: 67-63-0	EC number: 200-661-7	REACH registration number: 01-2119457558-25-XXXX	
Acute Toxicity Estimate (oral):5840 mg/kg			
Acute Toxicity Estimate (dermal):12800 mg/kg			
Acute Toxicity Estimate (inhalation):> 10000 ppmVapour6 hours			
Classification			
Flam. Liq. 2 - H225			
Eye Irrit. 2 - H319			
STOT SE 3 - H336			

The full text for all hazard statements is displayed in Section 16.

Composition comments The data shown are in accordance with the latest EC Directives.

SECTION 4: First aid measures

4.1. Description of first aid measures

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Inhalation	Get medical attention immediately. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If it is suspected that airborne contaminants are still present around the affected person, first aid personnel should wear an appropriate respirator or self-contained breathing apparatus. If breathing stops, provide artificial respiration. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation. Place unconscious person on their side in the recovery position and ensure breathing can take place. Get medical attention immediately. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. Keep affected person under observation. Development of symptoms may be delayed for 24 to 48 hours.
Ingestion	Get medical attention immediately. Rinse mouth thoroughly with water. Remove any dentures. Give plenty of water to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated by a physician. Never give anything by mouth to an unconscious person. Place unconscious person on their side in the recovery position and ensure breathing can take place. Get medical attention immediately. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.
Skin contact	Get medical attention immediately. After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated by a physician. Wash clothing and clean shoes thoroughly before reuse.
Eye contact	Get medical attention immediately. Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes. Chemical burns must be treated by a physician.
Protection of first aiders	No action shall be taken without appropriate training or involving any personal risk. If it is suspected that airborne contaminants are still present around the affected person, first aid personnel should wear an appropriate respirator or self-contained breathing apparatus. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves.

4.2. Most important symptoms and effects, both acute and delayed

Ingestion	Overexposure may cause the following adverse effects: Stomach pain.
Skin contact	Causes skin irritation. Overexposure may cause the following adverse effects: Irritation. Redness. Blistering may occur.
Eye contact	Causes serious eye damage. May cause permanent damage if eye is not immediately irrigated. May cause chemical eye burns. Overexposure may cause the following adverse effects: Pain. Profuse watering of the eyes. Redness.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically. Development of symptoms may be delayed for 24 to 48 hours. Keep affected person under observation.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

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5.2. Special hazards arising from the substance or mixture

Specific hazards	When heated and in case of fire, toxic vapours/gases may be formed. Containers can burst violently or explode when heated, due to excessive pressure build-up. Very toxic to aquatic life. Toxic to aquatic life with long lasting effects. Avoid the spillage or runoff entering drains, sewers or watercourses.
Hazardous combustion products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of the following substances: Carbon. Nitrogen. Sulphur.

5.3. Advice for firefighters

Protective actions during firefighting	No action shall be taken without appropriate training or involving any personal risk. Evacuate area.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Provide adequate ventilation. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Avoid inhalation of vapours and contact with skin and eyes. No action shall be taken without appropriate training or involving any personal risk. Evacuate area. Keep unnecessary and unprotected personnel away from the spillage. Do not touch or walk into spilled material. If ventilation is inadequate, suitable respiratory protection must be worn.
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6.2. Environmental precautions

Environmental precautions	Very toxic to aquatic life. Toxic to aquatic life with long lasting effects. Do not discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.
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6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Stop leak if safe to do so. Move containers from spillage area. Approach the spillage from upwind. Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely. Avoid the spillage or runoff entering drains, sewers or watercourses. Label the containers containing waste and contaminated materials and remove from the area as soon as possible.
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6.4. Reference to other sections

Reference to other sections	Wear protective clothing as described in Section 8 of this safety data sheet. Collect and dispose of spillage as indicated in Section 13.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions	Provide adequate ventilation. Follow precautions for safe handling described in this safety data sheet. Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of vapours and contact with skin and eyes. Avoid release to the environment. If ventilation is inadequate, suitable respiratory protection must be worn. Container must be kept tightly closed when not in use. Product residues retained in emptied containers can be hazardous. Do not reuse empty containers.
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Advice on general occupational hygiene

Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Remove contaminated clothing and protective equipment before entering eating areas. Provide eyewash station and safety shower. Good personal hygiene procedures should be implemented.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

Store in tightly-closed, original container in a dry, cool and well-ventilated place. Avoid exposure to high temperatures or direct sunlight. Keep away from food and drink. Store locked up. Container must be kept tightly closed when not in use. Keep containers upright. Only store in correctly labelled containers. Use appropriate containment to avoid environmental contamination.

7.3. Specific end use(s)

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

PROPAN-2-OL

Long-term exposure limit (8-hour TWA): WEL 400 ppm 999 mg/m³

Short-term exposure limit (15-minute): WEL 500 ppm 1250 mg/m³

WEL = Workplace Exposure Limit.

Ingredient comments

Observe any occupational exposure limits for the product or ingredients.

TRIMETHYL-3-[(1-OXO-10-UNDECENYL)AMINO]PROPYLAMMONIUM METHYL SULPHATE (CAS: 94313-91-4)

DNEL

Workers - Inhalation; Long term systemic effects: 10.1 mg/m³
 Workers - Dermal; Long term systemic effects: 2.9 mg/kg/day
 General population, Consumer - Inhalation; Long term systemic effects: 2.5 mg/m³
 General population, Consumer - Dermal; Long term systemic effects: 1.4 mg/kg/day
 General population, Consumer - Oral; Long term systemic effects: 1.43 mg/kg/day

PNEC

Fresh water; 0.32 µg/l
 marine water; 0.032 µg/l
 STP; 3.2 mg/l

PROPAN-2-OL (CAS: 67-63-0)

DNEL

Industry - Dermal; Long term systemic effects: 888 mg/kg/day
 Industry - Inhalation; Long term systemic effects: 500 mg/m³
 Consumer - Dermal; Long term systemic effects: 319 mg/kg/day
 Consumer - Inhalation; Long term systemic effects: 89 mg/m³
 Consumer - Oral; Long term systemic effects: 26 mg/kg/day

PNEC

- Fresh water; 140.9 mg/l
 - marine water; 140.9 mg/l
 - Intermittent release; 140.9 mg/l
 - STP; 2251 mg/l
 - Sediment (Freshwater); 552 mg/kg
 - Sediment (Marinewater); 552 mg/kg
 - Soil; 28 mg/kg

8.2. Exposure controls

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Protective equipment



Appropriate engineering controls

Provide adequate ventilation. As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapour or mist.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection

The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. The selected gloves should have a breakthrough time of at least 8 hours. Polyvinyl chloride (PVC). To protect hands from chemicals, gloves should comply with European Standard EN374.

Other skin and body protection

Wear appropriate clothing to prevent skin contamination.

Hygiene measures

When using do not eat, drink or smoke. Wash at the end of each work shift and before eating, smoking and using the toilet. Remove contaminated clothing and protective equipment before entering eating areas. Eye wash facilities and emergency shower must be available when handling this product.

Respiratory protection

Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. If ventilation is inadequate, suitable respiratory protection must be worn. EN 136/140/141/145/143/149

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Clear. Yellow.
Odour	Wax.
Odour threshold	No information available.
pH	pH (diluted solution): 5 - 7 (1%)
Melting point	-12°C to -7°C
Pour Point	No information available.
Freezing Point	No information available.
Initial boiling point and range	No information available.
Flash point	63°C Pensky-Martens closed cup.

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Evaporation rate	No information available.
Evaporation factor	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Other flammability	No information available.
Vapour pressure	No information available.
Vapour density	No information available.
Relative density	1.029 - 1.032 @ 20°C
Bulk density	No information available.
Solubility(ies)	Soluble in water. Water Soluble in the following materials: Methanol.
Partition coefficient	Not applicable.
Auto-ignition temperature	No information available.
Decomposition Temperature	No information available.
Viscosity	60 - 240 cP @ 20°C
Explosive properties	Not considered to be explosive.
Explosive under the influence of a flame	No information available.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Other information	No information available.
Refractive index	No information available.
Particle size	Not applicable.
Molecular weight	No information available.
Volatility	No information available.
Saturation concentration	No information available.
Critical temperature	No information available.
Volatile organic compound	No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	No test data specifically related to reactivity available for this product or its ingredients.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Under normal conditions of storage and use, no hazardous reactions will occur.
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10.4. Conditions to avoid

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Conditions to avoid Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials to avoid No specific recommendations.

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of the following substances: Carbon. Nitrogen. Sulphur.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) No information available.

Acute toxicity - dermal

Notes (dermal LD₅₀) No information available.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) No information available.

Skin corrosion/irritation

Animal data Causes skin irritation.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye damage.

Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation No information available.

Germ cell mutagenicity

Genotoxicity - in vitro No information available.

Carcinogenicity

Carcinogenicity No information available.

Reproductive toxicity

Reproductive toxicity - fertility No information available.

Specific target organ toxicity - single exposure

STOT - single exposure No information available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure No information available.

Aspiration hazard

Aspiration hazard No information available.

Toxicokinetics

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Inhalation

Gas or vapour in high concentrations may irritate the respiratory system.

Ingestion

Overexposure may cause the following adverse effects: Stomach pain.

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Skin contact	Causes skin irritation. Overexposure may cause the following adverse effects: Pain or irritation. Irritation. Redness.
Eye contact	Causes serious eye damage. May cause permanent damage if eye is not immediately irrigated. May cause chemical eye burns. Overexposure may cause the following adverse effects: Pain. Profuse watering of the eyes. Redness.

Toxicological information on ingredients.

TRIMETHYL-3-[(1-OXO-10-UNDECENYL)AMINO]PROPYLAMMONIUM METHYL SULPHATE

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ 2350 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ > 2000 mg/kg, Dermal, Rat

Acute toxicity - inhalation

Notes (inhalation LC₅₀) No specific test data are available.

Skin corrosion/irritation

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye damage.

Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro Bacterial reverse mutation test: Negative. OECD 471 Chromosome aberration: Negative. OECD 473

Carcinogenicity

Carcinogenicity No information available.

Reproductive toxicity

Reproductive toxicity - fertility No information available.

Specific target organ toxicity - single exposure

STOT - single exposure No information available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure NOAEL 286 mg/kg, Oral, Rat 90 days 7 days/week

Aspiration hazard

Aspiration hazard No information available.

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Toxicokinetics	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Inhalation	Gas or vapour in high concentrations may irritate the respiratory system.
Ingestion	May cause discomfort if swallowed.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye damage. May cause permanent damage if eye is not immediately irrigated. May cause chemical eye burns.

PROPAN-2-OL

Acute toxicity - oral

Acute toxicity oral (LD ₅₀ mg/kg)	5,840.0
Species	Rat
Notes (oral LD ₅₀)	LD ₅₀ 5840 mg/kg, Oral, Rat OECD 401
ATE oral (mg/kg)	5,840.0

Acute toxicity - dermal

Acute toxicity dermal (LD ₅₀ mg/kg)	12,800.0
Species	Rabbit
Notes (dermal LD ₅₀)	LD ₅₀ > 12800 mg/kg, Dermal, Rabbit OECD 402
ATE dermal (mg/kg)	12,800.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC ₅₀ gases ppmV)	10,000.0
Species	Rat
Notes (inhalation LC ₅₀)	LC ₅₀ > 10000 ppm, 6 hours, Vapour Rat OECD 403

Skin corrosion/irritation

Animal data	Not irritating.
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Serious eye damage/irritation

Serious eye damage/irritation	Causes serious eye irritation.
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Respiratory sensitisation

Respiratory sensitisation	No information available.
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Skin sensitisation

Skin sensitisation	No information available.
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Germ cell mutagenicity

Genotoxicity - in vitro	Negative.
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Carcinogenicity

Carcinogenicity There is no evidence that the product can cause cancer.

Reproductive toxicity

Reproductive toxicity - fertility No evidence of reproductive toxicity in animal studies.

Specific target organ toxicity - single exposure

STOT - single exposure May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure No information available.

Aspiration hazard

Aspiration hazard Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.

Toxicokinetics The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Inhalation Gas or vapour in high concentrations may irritate the respiratory system. May cause drowsiness or dizziness.

Ingestion Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Skin contact Skin irritation should not occur when used as recommended.

Eye contact Causes serious eye irritation.

Target organs Kidneys Liver

SECTION 12: Ecological information

Ecotoxicity Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Ecological information on ingredients.

TRIMETHYL-3-[(1-OXO-10-UNDECENYL)AMINO]PROPYLAMMONIUM METHYL SULPHATE

Ecotoxicity Very toxic to aquatic life.
Toxic to aquatic life with long lasting effects.

PROPAN-2-OL

Ecotoxicity The product is not expected to be hazardous to the environment. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

Toxicity Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Ecological information on ingredients.

TRIMETHYL-3-[(1-OXO-10-UNDECENYL)AMINO]PROPYLAMMONIUM METHYL SULPHATE

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Toxicity	Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.
<u>Acute aquatic toxicity</u>	
LE(C)₅₀	0.01 < L(E)C ₅₀ ≤ 0.1
M factor (Acute)	10
Acute toxicity - fish	LC ₅₀ , 96 hours: > 251.3 mg/l, Brachydanio rerio (Zebra Fish) OECD 203
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 136 mg/l, Daphnia magna OECD 202
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: 0.097 mg/l, Algae OECD 201
<u>Chronic aquatic toxicity</u>	
Chronic toxicity - fish early life stage	NOEC, 96 hours: 0.5 mg/l, Fish
Chronic toxicity - aquatic invertebrates	NOEC, 48 hour: 29 mg/l, Daphnia magna

PROPAN-2-OL

Toxicity	Not considered toxic to fish.
<u>Acute aquatic toxicity</u>	
Acute toxicity - fish	LC ₅₀ , 48 hours: 9640 mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 10000 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 7 days: 1800 mg/l, Algae

12.2. Persistence and degradability

Persistence and degradability The product is readily biodegradable. This surfactant complies with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them at their direct request, or at the request of a detergent manufacturer.

Biodegradation - Degradation 80%: 28 days
OECD 301B

Ecological information on ingredients.

TRIMETHYL-3-[(1-OXO-10-UNDECENYL)AMINO]PROPYLAMMONIUM METHYL SULPHATE

Persistence and degradability The product is readily biodegradable.

PROPAN-2-OL

Persistence and degradability The substance is readily biodegradable.

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Biological oxygen demand 53 %

12.3. Bioaccumulative potential

Biaccumulative potential No data available on bioaccumulation.

Partition coefficient Not applicable.

Ecological information on ingredients.

TRIMETHYL-3-[(1-OXO-10-UNDECENYL)AMINO]PROPYLAMMONIUM METHYL SULPHATE

Biaccumulative potential Bioaccumulation is unlikely.

Partition coefficient log Pow: -0.73

PROPAN-2-OL

Biaccumulative potential The product is not bioaccumulating.

Partition coefficient log Pow: 0.05 OECD 107

12.4. Mobility in soil

Mobility The product is soluble in water.

Ecological information on ingredients.

TRIMETHYL-3-[(1-OXO-10-UNDECENYL)AMINO]PROPYLAMMONIUM METHYL SULPHATE

Mobility No information available.

PROPAN-2-OL

Mobility The product is soluble in water.

Surface tension 22.7 mN/m @ 20°C

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

TRIMETHYL-3-[(1-OXO-10-UNDECENYL)AMINO]PROPYLAMMONIUM METHYL SULPHATE

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

PROPAN-2-OL

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Ecological information on ingredients.

TRIMETHYL-3-[(1-OXO-10-UNDECENYL)AMINO]PROPYLAMMONIUM METHYL SULPHATE

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Other adverse effects	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
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PROPAN-2-OL

Other adverse effects	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information	Waste is classified as hazardous waste. Do not puncture or incinerate, even when empty.
Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General	Wear protective clothing as described in Section 8 of this safety data sheet.
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14.1. UN number

UN No. (ADR/RID)	3082
UN No. (IMDG)	3082
UN No. (ICAO)	3082
UN No. (ADN)	3082

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS TRIMETHYL-3-[(1-OXO-10-UNDECENYL)AMINO]PROPYLAMMONIUM METHYL SULPHATE)
Proper shipping name (IMDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS TRIMETHYL-3-[(1-OXO-10-UNDECENYL)AMINO]PROPYLAMMONIUM METHYL SULPHATE)
Proper shipping name (ICAO)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS TRIMETHYL-3-[(1-OXO-10-UNDECENYL)AMINO]PROPYLAMMONIUM METHYL SULPHATE)
Proper shipping name (ADN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS TRIMETHYL-3-[(1-OXO-10-UNDECENYL)AMINO]PROPYLAMMONIUM METHYL SULPHATE)

14.3. Transport hazard class(es)

ADR/RID class	9
ADR/RID classification code	M6
ADR/RID label	9
IMDG class	9
ICAO class/division	9

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ADN class 9

Transport labels



14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ICAO packing group	III
ADN packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

EmS	F-A, S-F
ADR transport category	3
Emergency Action Code	•3Z
Hazard Identification Number (ADR/RID)	90
Tunnel restriction code	(-)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

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

EU legislation	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 This product may impact SEVESO storage regulations.
Health and environmental listings	This surfactant complies with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them at their direct request, or at the request of a detergent manufacturer.

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**Restrictions (Annex XVII
Regulation 1907/2006)**

CAUTION - Chemical may be subject to REACH RESTRICTIONS - see Annex XVII. This product is/contains a substance that is included in REGULATION (EC) No 1907/2006 (REACH) ANNEX XVII - RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES. Entry number: 3

**Seveso Directive - Control of
major accident hazards** E1

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Inventories**Australia - AICS**

All the ingredients are listed or exempt.

China - IECSC

All the ingredients are listed or exempt.

Taiwan - TCSI

All the ingredients are listed or exempt.

SECTION 16: Other information

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Abbreviations and acronyms used in the safety data sheet

ATE: Acute Toxicity Estimate.
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
 CAS: Chemical Abstracts Service.
 DNEL: Derived No Effect Level.
 IATA: International Air Transport Association.
 IMDG: International Maritime Dangerous Goods.
 Kow: Octanol-water partition coefficient.
 LC₅₀: Lethal Concentration to 50 % of a test population.
 LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
 PBT: Persistent, Bioaccumulative and Toxic substance.
 PNEC: Predicted No Effect Concentration.
 REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.
 RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
 vPvB: Very Persistent and Very Bioaccumulative.
 IARC: International Agency for Research on Cancer.
 MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.
 cATpE: Converted Acute Toxicity Point Estimate.
 BCF: Bioconcentration Factor.
 BOD: Biochemical Oxygen Demand.
 EC₅₀: 50% of maximal Effective Concentration.
 LOAEC: Lowest Observed Adverse Effect Concentration.
 LOAEL: Lowest Observed Adverse Effect Level.
 NOAEC: No Observed Adverse Effect Concentration.
 NOAEL: No Observed Adverse Effect Level.
 NOEC: No Observed Effect Concentration.
 LOEC: Lowest Observed Effect Concentration.
 DMEL: Derived Minimal Effect Level.
 EL50: Exposure Limit 50
 hPa: Hectopascal
 LL50: Lethal Loading fifty
 OECD: Organisation for Economic Co-operation and Development
 POW: Octanol-water partition coefficient
 SCBA: self-contained breathing apparatus
 STP: Sewage Treatment Plant
 VOC: Volatile Organic Compounds

Classification abbreviations and acronyms

Acute Tox. = Acute toxicity
 Aquatic Acute = Hazardous to the aquatic environment (acute)
 Aquatic Chronic = Hazardous to the aquatic environment (chronic)

Key literature references and sources for data

Supplier's information.

Classification procedures according to Regulation (EC) 1272/2008

Skin Irrit. 2 - H315: Calculation method. Eye Dam. 1 - H318: Calculation method. Aquatic Acute 1 - H400: Calculation method. Aquatic Chronic 2 - H411: Calculation method.

Revision comments

NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date

06/04/2023

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Version number	5.000
Supersedes date	23/11/2020
SDS number	51169
SDS status	Approved.
Hazard statements in full	H225 Highly flammable liquid and vapour. H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. H400 Very toxic to aquatic life. H411 Toxic to aquatic life with long lasting effects.
Signature	Lisa Bland

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