

This safety data sheet was created pursuant to the requirements of:
UK REACH Regulations (SI 2019/758 as amended)

Supersedes date 12-Sep-2025

Revision date 23-Jan-2026

Revision Number 11

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

1.1. Product identifier

Product Code(s) 10913

Safety data sheet number 10913

Product Name BETADET SHR

Synonyms BETADET SHR RSPO MB

Pure substance/mixture Mixture

Contains 1-PROPANAMINIUM, N-(3-AMINOPROPYL)-2-HYDROXY-N,N-DIMETHYL-3-SULFO-, N-C12-14 ACYL DERIVS., HYDROXIDES, INNER SALTS

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

Recommended use

- Manufacture of substance
- Cleaning agent
- Polish
- Wax
- Cosmetics
- Formulation of preparations (mixtures)
- Metallurgical Industry
- Foaming agent
- Emulsifier
- Equipment maintenance and handling of waste
- surfactant
- Industrial use
- Consumer use
- Professional use

For further information, see attached Exposure Scenario

1.3. Details of the supplier of the safety data sheet

Supplier

Univar Solutions UK Ltd
Aquarius House
6 Mid Point Business Park
Bradford
GBR

For further information, please contact

E-mail address SDS.EMEA@univarsolutions.com

Non-Emergency Telephone Number +44 1274 267300 / +44 1274 267306

1.4. Emergency telephone number

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Serious eye damage/eye irritation	Category 1 - (H318)
Chronic aquatic toxicity	Category 2 - (H411)

2.2. Label elements

Contains 1-PROPANAMINIUM, N-(3-AMINOPROPYL)-2-HYDROXY-N,N-DIMETHYL-3-SULFO-, N-C12-14 ACYL DERIVS., HYDROXIDES, INNER SALTS



Signal word
Danger

Hazard statements

H318 - Causes serious eye damage

H411 - Toxic to aquatic life with long lasting effects

Precautionary statements

P273 - Avoid release to the environment

P280 - Wear eye protection/ face protection

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor

P391 - Collect spillage

P501 - Dispose of contents/ container to an approved waste disposal plant

Unknown aquatic toxicity

Contains 0 % of components with unknown hazards to the aquatic environment.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	Weight-%	EC No (EU Index No)	UK REACH registration number	Classification according to GB CLP (SI 2020/1567 as	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
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				amended)			
1-PROPANAMINIUM, N-(3-AMINOPROPYL)-2-HYDROXY-N,N-DIMETHYL-3-SULFO-, N-C12-14 ACYL DERIVS., HYDROXIDES, INNER SALTS 91648-19-0	>=35 - <=50 %	293-878-1	-	Aquatic Chronic 2 (H411) Eye Dam. 1 (H318)	-	-	-

Full text of H- and EUH-phrases: see section 16

This product does not contain candidate substances of very high concern at a concentration >= 0.1% (UK REACH Article 59)

SECTION 4: First aid measures**4.1. Description of first aid measures****Inhalation**

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Rinse mouth thoroughly with water. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Place unconscious person on the side in the recovery position and ensure breathing can take place. Get medical attention immediately if symptoms occur. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a doctor immediately. Chemical burns must be treated promptly by a physician.

Skin contact

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 15 minutes and seek medical attention. Chemical burns must be treated promptly by a physician. Wash contaminated clothing before reuse.

Ingestion

Rinse mouth thoroughly with water. Remove dentures if any. Drink plenty of water. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. Place unconscious person on the side in the recovery position and ensure breathing can take place. Maintain an open airway. Get medical attention immediately if symptoms occur. Loosen tight clothing such as a collar, tie, belt or waistband.

Self-protection of the first aider

No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2. Most important symptoms and effects, both acute and delayed**Symptoms****Eyes**

Causes serious eye damage. May cause permanent damage if eye is not immediately

irrigated. Causes eye burns. Overexposure may cause the following adverse effects. May cause redness and tearing of the eyes. Pain.

Dermal Overexposure may cause the following adverse effects. Pain. Irritating. Redness. Blistering.

Ingestion Overexposure may cause the following adverse effects Gastrointestinal discomfort

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

Note to doctors Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Dry chemical, CO2, alcohol-resistant foam or water spray.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical When heated and in case of fire, toxic vapours/gases may be formed. Toxic to aquatic life with long lasting effects. Closed containers can burst violently when heated, due to excess pressure build-up. Do not allow run-off from fire-fighting to enter drains or water courses.

Hazardous combustion products Carbon oxides.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation. Use personal protection recommended in Section 8. Avoid contact with skin, eyes and inhalation of vapours. No action shall be taken involving any personal risk or without suitable training. Evacuate personnel to safe areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material.

Other information Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Stop leak if possible without any risk. Move containers from fire area if you can do it without

risk. Keep upwind. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Do not allow run-off from fire-fighting to enter drains or water courses.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Ensure adequate ventilation. Use personal protection recommended in Section 8. Avoid contact with skin, eyes and inhalation of vapours. Do not swallow. Avoid release to the environment. Keep container closed when not in use. Empty containers retain product residue and can be hazardous. Do not re-use container.

General hygiene considerations Do not eat, drink or smoke when using the product. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Protect from direct sunlight. See section 10 for more information. Keep away from food, drink and animal feedingstuffs. Store locked up. Keep container closed when not in use. Keep in properly labelled containers. Use appropriate containment to avoid environmental contamination.

7.3. Specific end use(s)

Specific use(s)
See section 1 for more information.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
1-PROPANAMINIUM, N-(3-AMINOPROPYL)-2-HYDROXY-N ,N-DIMETHYL-3-SULFO-, N-C12-14		1.7 mg/kg bw/day [4] [6]	1.2 mg/m ³ [4] [6]

Chemical name	Oral	Dermal	Inhalation
ACYL DERIVS., HYDROXIDES, INNER SALTS 91648-19-0			

[4] Systemic health effects.
[6] Long term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
1-PROPANAMINIUM, N-(3-AMINOPROPYL)-2-HYDROXY-N ,N-DIMETHYL-3-SULFO-, N-C12-14 ACYL DERIVS., HYDROXIDES, INNER SALTS 91648-19-0	0.2 mg/kg bw/day [4] [6]	0.8 mg/kg bw/day [4] [6]	0.3 mg/m ³ [4] [6]

[4] Systemic health effects.
[6] Long term.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
1-PROPANAMINIUM, N-(3-AMINOPROPYL)-2-H YDROXY-N,N-DIMETHYL- 3-SULFO-, N-C12-14 ACYL DERIVS., HYDROXIDES, INNER SALTS 91648-19-0	15.2 µg/L		1.52 µg/L		

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
1-PROPANAMINIUM, N-(3-AMINOPROPYL)-2-H YDROXY-N,N-DIMETHYL- 3-SULFO-, N-C12-14 ACYL DERIVS., HYDROXIDES, INNER SALTS 91648-19-0	54.91 µg/kg sediment dw	5.49 µg/kg sediment dw	100 mg/L	2.06 µg/kg soil dw	

8.2. Exposure controls

Engineering controls No information available.

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). Use eye protection according to EN 166.

Hand protection Wear suitable gloves. Gloves must conform to standard EN 374.

Gloves			
Duration of contact	PPE - Glove material	Glove thickness	Break through time
	Wear protective butyl rubber gloves		> 480 minutes
	Wear protective Viton™ gloves		> 480 minutes
	Wear protective nitrile rubber gloves		> 480 minutes
	Wear protective Neoprene™ gloves		> 480 minutes

Skin and body protection Wear appropriate clothing to prevent reasonably probable skin contact.

Respiratory protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

General hygiene considerations Do not eat, drink or smoke when using the product. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Liquid
Colour	clear Yellowish
Odour	Soap.
Odour threshold	No information available

Property	Values	Remarks • Method
Melting point / freezing point	< -10 °C	
Initial boiling point and boiling range		No information available.
Flammability		No information available.
Flammability Limit in Air		No information available.
Upper flammability or explosive limits		
Lower flammability or explosive limits		
Flash point	> 100 °C	Closed cup.
Autoignition temperature		No information available.
Decomposition temperature		No information available.
pH	5 - 7	
pH (as aqueous solution)		No information available.
Kinematic viscosity		No information available.
Dynamic viscosity	50 - 200 cP	@ 20 °C.
Water solubility	Soluble in water	
Solubility(ies)		No information available.
Partition coefficient		Not applicable.
Vapour pressure		No information available.
Relative density	1.12	@ 20 °C.
Bulk density		No information available
Liquid Density	No information available	No information available
Relative vapour density		No information available.

Particle characteristics		Not applicable.
Particle Size	No information available	
Particle Size Distribution	No information available	
Explosive properties	No information available	
Oxidising properties	No information available	

9.2. Other information

Softening point	<0 °C
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SECTION 10: Stability and reactivity**10.1. Reactivity**

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

Stability	Stable under normal conditions.
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Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur.
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10.4. Conditions to avoid

Conditions to avoid	None known based on information supplied.
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10.5. Incompatible materials

Incompatible materials	Strong acids. Strong bases. Strong oxidising agents.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Carbon oxides.
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SECTION 11: Toxicological information**11.1. Information on toxicological effects****Information on likely routes of exposure****Product Information**

Inhalation	Inhalation of vapours in high concentration may cause irritation of respiratory system.
Eye contact	Causes serious eye damage. May cause permanent damage if eye is not immediately irrigated. Causes eye burns. Overexposure may cause the following adverse effects. May cause redness and tearing of the eyes. Pain.
Skin contact	Non-irritating during normal use. Overexposure may cause the following adverse effects. Pain. Redness. Irritating. Blistering.
Ingestion	Overexposure may cause the following adverse effects. Gastrointestinal discomfort.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms**Acute toxicity****Numerical measures of toxicity**

The following values are calculated based on chapter 3.1 of the GHS document

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
1-PROPANAMINIUM, N-(3-AMINOPROPYL)-2-HYDR OXY-N,N-DIMETHYL-3-SULFO -, N-C12-14 ACYL DERIVS., HYDROXIDES, INNER SALTS	> 2000	> 2000	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Non-irritating during normal use.
Serious eye damage/eye irritation	Causes serious eye damage. May cause permanent damage if eye is not immediately irrigated. Causes eye burns.
Respiratory or skin sensitisation	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.
Other adverse effects	No information available.

SECTION 12: Ecological information**12.1. Toxicity**

Ecotoxicity	Toxic to aquatic life with long lasting effects.
Unknown aquatic toxicity	Contains 0 % of components with unknown hazards to the aquatic environment.

1-PROPANAMINIUM, N-(3-AMINOPROPYL)-2-HYDROXY-N,N-DIMETHYL-3-SULFO-, N-C12-14 ACYL DERIVS., HYDROXIDES, INNER SALTS (91648-19-0)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Algae	EC50	2.26 mg/L	72 hours	
OECD Test No. 202: Daphnia sp., Acute Immobilisation Test	Daphnia magna	LC50	4 mg/L	48 hours	
OECD Test No. 203: Fish, Acute Toxicity Test	Fish	LC50	2.12 mg/L	96 hours	
Chronic aquatic toxicity	Fish	EC10	0.075 mg/L	32 days	
Chronic aquatic toxicity	Algae	NOEC	0.76 mg/L	72 hours	
Chronic aquatic toxicity OECD Test No. 211: Daphnia magna Reproduction Test	Daphnia magna	NOEC	1.05 mg/L	21 days	

12.2. Persistence and degradability

Persistence and degradability

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.

1-PROPANAMINIUM, N-(3-AMINOPROPYL)-2-HYDROXY-N,N-DIMETHYL-3-SULFO-, N-C12-14 ACYL DERIVS., HYDROXIDES, INNER SALTS (91648-19-0)

Method	Exposure time	Value	Results
OECD Test No. 301D: Ready Biodegradability: Closed Bottle Test (TG 301 D)	28 days	Biodegradation > 60 %	Readily biodegradable
ISO 11734	60 days	Biodegradation 60 %	Readily biodegradable

12.3. Bioaccumulative potential

Bioaccumulation

There is no data for this product.

12.4. Mobility in soil

Mobility in soil

Soluble in water.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment

The product does not contain any substance(s) classified as PBT or vPvB.

Chemical name	PBT and vPvB assessment
1-PROPANAMINIUM, N-(3-AMINOPROPYL)-2-HYDROXY-N,N-DIMETHYL-3-SULFO-, N-C12-14 ACYL DERIVS., HYDROXIDES, INNER SALTS	The substance is not PBT / vPvB

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

SECTION 14: Transport information**IATA**

14.1 UN number or ID number	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (1-PROPANAMINIUM, N-(3-AMINOPROPYL)-2-HYDROXY-N,N-DIMETHYL-3-SULFO-, N-C12-14 ACYL DERIVS., HYDROXIDES, INNER SALTS)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	A97, A158, A197
ERG Code	9L

IMDG

14.1 UN number or ID number	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (1-PROPANAMINIUM, N-(3-AMINOPROPYL)-2-HYDROXY-N,N-DIMETHYL-3-SULFO-, N-C12-14 ACYL DERIVS., HYDROXIDES, INNER SALTS)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	274, 335, 969
EmS-No	F-A, S-F
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number or ID number	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (1-PROPANAMINIUM, N-(3-AMINOPROPYL)-2-HYDROXY-N,N-DIMETHYL-3-SULFO-, N-C12-14 ACYL DERIVS., HYDROXIDES, INNER SALTS)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	274, 335, 375, 601
Classification code	M6

ADR

14.1 UN number or ID number	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (1-PROPANAMINIUM, N-(3-AMINOPROPYL)-2-HYDROXY-N,N-DIMETHYL-3-SULFO-, N-C12-14 ACYL DERIVS., HYDROXIDES, INNER SALTS)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	274, 335, 601, 375
Classification code	M6

Tunnel restriction code (-)

SECTION 15: Regulatory information

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

National regulations

Authorisations and/or restrictions on use:

This product contains one or more substances subject to restriction (UK REACH - Annex XVII).

This product does not contain substances subject to authorisation (UK REACH - Annex XIV).

Persistent Organic Pollutants

Not applicable

Export Notification requirements

Not applicable

Dangerous substance category per COMAH Regulations 2015 (as amended)

E2 - Hazardous to the Aquatic Environment in Category Chronic 2

Named dangerous substances per COMAH Regulations 2015 (as amended)

Not applicable

The Ozone-Depleting Substances Regulations 2015

Not applicable

The Biocidal Products Regulations 2001 (as amended)

Not applicable

The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (as amended)

Not applicable

Poisons Act 1972 (Explosive Precursors) Regulations (as Amended)

Not applicable

International Inventories

TSCA

Contact supplier for inventory compliance status

DSL/NDL

Contact supplier for inventory compliance status

EINECS/ELINCS

Contact supplier for inventory compliance status

ENCS

Contact supplier for inventory compliance status

IECSC

Contact supplier for inventory compliance status

KECI

Contact supplier for inventory compliance status

PICCS

Contact supplier for inventory compliance status

AIIC

Contact supplier for inventory compliance status

NZIoC

Contact supplier for inventory compliance status

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AIIC - Australian Inventory of Industrial Chemicals

NZIoC - New Zealand Inventory of Chemicals

15.2. Chemical safety assessment**Chemical Safety Report**

No information available

SECTION 16: Other information**Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under section 3**

H318 - Causes serious eye damage

H411 - Toxic to aquatic life with long lasting effects

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: Exposure controls/personal protection

TWA TWA (time-weighted average)

STEL

STEL (Short Term Exposure Limit)

Ceiling Maximum limit value

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Skin designation

+ Sensitisers

Revision Note SDS sections updated 1 16

Classification procedure

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Method Used

Acute oral toxicity

Calculation method

Acute dermal toxicity

Calculation method

Acute inhalation toxicity - gas

Calculation method

Acute inhalation toxicity - vapour

Calculation method

Acute inhalation toxicity - dust/mist

Calculation method

Skin corrosion/irritation

Calculation method

Serious eye damage/eye irritation

Calculation method

Respiratory sensitisation

Calculation method

Skin sensitisation

Calculation method

Mutagenicity

Calculation method

Carcinogenicity

Calculation method

Reproductive toxicity

Calculation method

STOT - single exposure

Calculation method

STOT - repeated exposure

Calculation method

Acute aquatic toxicity

Calculation method

Chronic aquatic toxicity

Calculation method

Aspiration hazard

Calculation method

Ozone

Calculation method

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)

European Chemicals Agency (ECHA) (ECHA_API)

Environmental Protection Agency

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

National Institute of Technology and Evaluation (NITE)

Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

U.S. National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications

Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme

Organisation for Economic Co-operation and Development Screening Information Data Set

World Health Organization

Prepared By Lisa Bland

Supersedes date 12-Sep-2025

Revision date 23-Jan-2026

This material safety data sheet complies with the requirements of UK REACH Regulations (SI 2019/758 as amended)

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

Chemical name	1-PROPANAMINIUM, N-(3-AMINOPROPYL)-2-HYDROXY-N,N-DIMETHYL-3-SULFO-, N-C12-14 ACYL DERIVS., HYDROXIDES, INNER SALTS
Pure substance/mixture	Mixture
REACH registration number	01-2120765740-52-XXXX
CAS No	91648-19-0
EC No (EU Index No)	293-878-1
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford GBR
Non-Emergency Telephone Number	+44 1274 267300 / +44 1274 267306
E-mail address	SDS.EMEA@univarsolutions.com

Section 1 - Title

Title	Manufacture of substance
Type	Worker
Main user group	Industrial uses: Uses of substances as such or in preparations at industrial sites
Environmental release category(ies)	ERC1 - Manufacture of substances
Process category(ies)	PROC3 - Use in closed batch process (synthesis or formulation) PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising PROC15 - Use as laboratory reagent
Sector(s) of use	SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Section 2 - Operational conditions and risk management measures

Section 2.1 - Control of environmental exposure

Environmental release category(ies) - ERC1 - Manufacture of substances

Amounts used

Type	Annual site tonnage
Value	<= 500
Units	t(ons)/year

Type	Daily amount per site
Value	<= 8.6
Units	kg/d

Conditions and measures related to municipal sewage treatment plant

Type	Municipal STP
Assumed domestic sewage treatment plant flow	2000 m3/d

Environmental factors not influenced by risk management

Receiving water dilution (fresh or marine)	777600 m3/d
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Control measures to prevent releases

Air	Limit release rate to air to 0 kg/d
Water	Provide onsite wastewater removal efficiency of 97% Limit release rate to waste water to 15.52 kg/d

Conditions and measures related to external treatment of waste for disposal

Disposal	External treatment and disposal of waste should comply with applicable local and/or national regulations
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Control of worker exposure

Title	General measures applicable to all activities
Covers concentrations up to	50%
Physical form of product	Liquid
Exposure duration	Avoid carrying out operation for more than 2 hours
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Conditions and measures related to personal protection, hygiene and health evaluation	Wear suitable gloves (tested to EN 374) and eye protection
Organisational measures to prevent /limit releases, dispersion and exposure	Assumes a good basic standard of occupational hygiene is implemented
Indoor/Outdoor use	Outdoor use

Section 3 - Exposure estimation

Environmental release category(ies) - ERC1 - Manufacture of substances

Predicted No Effect Concentration (PNEC)

Freshwater	15.2 µg/l
Freshwater sediment	54.91 µg/kg dwt
Marine water	1.52 µg/l
Marine sediment	5.49 µg/kg dwt
Soil	2.06 µg/kg dwt
Impact on Sewage Treatment	100 mg/l

Calculation method	Used EUSES model
Remarks	For further information, please contact psr@kao.es

Derived No Effect Level (DNEL):

Worker - dermal, long-term - systemic	1.7 mg/kg bw/d
Worker - inhalative, long-term - systemic	1.2 mg/m ³
Consumer - oral, long-term - systemic	0.2 mg/kg bw/d
Consumer - dermal, long-term - systemic	0.8 mg/kg bw/d
Consumer - inhalative, long-term - systemic	0.3 mg/m ³

Calculation method	Used ECETOC TRA model
Remarks	For further information, please contact psr@kao.es

Section 4 - Guidance to check compliance with the exposure scenario

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

Chemical name	1-PROPANAMINIUM, N-(3-AMINOPROPYL)-2-HYDROXY-N,N-DIMETHYL-3-SULFO-, N-C12-14 ACYL DERIVS., HYDROXIDES, INNER SALTS
Pure substance/mixture	Mixture
REACH registration number	01-2120765740-52-XXXX
CAS No	91648-19-0
EC No (EU Index No)	293-878-1
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford GBR
Non-Emergency Telephone Number	+44 1274 267300 / +44 1274 267306
E-mail address	SDS.EMEA@univarsolutions.com

Section 1 - Title

Title	Washing and cleaning products
Type	Worker
Main user group	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Environmental release category(ies)	ERC8a - Wide dispersive indoor use of processing aids in open systems
Process category(ies)	PROC1 - Use in closed process, no likelihood of exposure PROC3 - Use in closed batch process (synthesis or formulation) PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities PROC10 - Roller application or brushing PROC11 - Non industrial spraying PROC13 - Treatment of articles by dipping and pouring PROC19 - Hand-mixing with intimate contact and only PPE available
Product category(ies)	PC8 - Biocidal Products (e.g. disinfectants, pest control) PC35 - Washing and cleaning products (including solvent based products)
Sector(s) of use	SU22 - Professional uses

Section 2 - Operational conditions and risk management measures

Section 2.1 - Control of environmental exposure

Environmental release category(ies) - ERC8a - Wide dispersive indoor use of processing aids in open systems

Amounts used

Type	Annual site tonnage
Value	<= 40
Units	t(ons)/year

Type	Daily amount per site
Value	<= 0.0033
Units	kg/d

Conditions and measures related to municipal sewage treatment plant

Type	Municipal STP
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Control measures to prevent releases

Air	Limit release rate to air to 0 kg/d
Water	Provide onsite wastewater removal efficiency of 87.34%

	Limit release rate to waste water to 0.00329 kg/d
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Conditions and measures related to external treatment of waste for disposal

Disposal	External treatment and disposal of waste should comply with applicable local and/or national regulations
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Control of worker exposure

Title	General measures applicable to all activities
Covers concentrations up to	1.5%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Provide a basic standard of general ventilation (1 to 3 air changes per hour)
Indoor/Outdoor use	Indoor use

Process category(ies)	PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises
Conditions and measures related to personal protection, hygiene and health evaluation	Wear suitable gloves tested to EN 374

Process category(ies)	PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities PROC10 - Roller application or brushing PROC11 - Non industrial spraying PROC13 - Treatment of articles by dipping and pouring PROC19 - Hand-mixing with intimate contact and only PPE available
Exposure duration	Avoid carrying out activities involving exposure for more than 1 hour
Conditions and measures related to personal protection, hygiene and health evaluation	Wear suitable gloves tested to EN 374

Section 3 - Exposure estimation

Environmental release category(ies) - ERC8a - Wide dispersive indoor use of processing aids in open systems

Predicted No Effect Concentration (PNEC)

Freshwater	15.2 µg/l
Freshwater sediment	54.91 µg/kg dw
Marine water	1.52 µg/l
Marine sediment	5.49 µg/kg dw
Soil	2.06 µg/kg dw
Impact on Sewage Treatment	100 mg/l

Calculation method	Used EUSES model
Remarks	For further information, please contact psr@kao.es

Derived No Effect Level (DNEL):

Worker - dermal, long-term - systemic	1.7 mg/kg bw/d
Worker - inhalative, long-term - systemic	1.2 mg/m³

Consumer - oral, long-term - systemic	0.2 mg/kg bw/d
Consumer - dermal, long-term - systemic	0.8 mg/kg bw/d
Consumer - inhalative, long-term - systemic	0.3 mg/m ³

Calculation method

Used ECETOC TRA model

Remarks

For further information, please contact psr@kao.es

Section 4 - Guidance to check compliance with the exposure scenario

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

Chemical name	1-PROPANAMINIUM, N-(3-AMINOPROPYL)-2-HYDROXY-N,N-DIMETHYL-3-SULFO-, N-C12-14 ACYL DERIVS., HYDROXIDES, INNER SALTS
Pure substance/mixture	Mixture
REACH registration number	01-2120765740-52-XXXX
CAS No	91648-19-0
EC No (EU Index No)	293-878-1
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford GBR
Non-Emergency Telephone Number	+44 1274 267300 / +44 1274 267306
E-mail address	SDS.EMEA@univarsolutions.com

Section 1 - Title

Title	Polishes and wax blends
Type	Worker
Main user group	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Environmental release category(ies)	ERC8a - Wide dispersive indoor use of processing aids in open systems
Process category(ies)	PROC1 - Use in closed process, no likelihood of exposure PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities PROC10 - Roller application or brushing PROC13 - Treatment of articles by dipping and pouring PROC19 - Hand-mixing with intimate contact and only PPE available
Product category(ies)	PC31 - Polishes and wax blends
Sector(s) of use	SU22 - Professional uses

Section 2 - Operational conditions and risk management measures

Section 2.1 - Control of environmental exposure

Environmental release category(ies) - ERC8a - Wide dispersive indoor use of processing aids in open systems

Amounts used

Type	Annual site tonnage
Value	<= 40
Units	t(ons)/year

Type	Daily amount per site
Value	<= 0.0033
Units	kg/d

Conditions and measures related to municipal sewage treatment plant

Type	Municipal STP
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Control measures to prevent releases

Air	Limit release rate to air to 0 kg/d
Water	Provide onsite wastewater removal efficiency of 87.34% Limit release rate to waste water to 0.00329 kg/d

Conditions and measures related to external treatment of waste for disposal

Disposal	External treatment and disposal of waste should comply with applicable local and/or national regulations
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Control of worker exposure

Title	General measures applicable to all activities
Covers concentrations up to	1.5%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Provide a basic standard of general ventilation (1 to 3 air changes per hour)
Conditions and measures related to personal protection, hygiene and health evaluation	Wear suitable gloves tested to EN 374
Indoor/Outdoor use	Indoor use

Process category(ies)	PROC10 - Roller application or brushing PROC19 - Hand-mixing with intimate contact and only PPE available
Exposure duration	Avoid carrying out activities involving exposure for more than 1 hour

Section 3 - Exposure estimation

Environmental release category(ies) - ERC8a - Wide dispersive indoor use of processing aids in open systems

Predicted No Effect Concentration (PNEC)

Freshwater	15.2 µg/l
Freshwater sediment	54.91 µg/kg dwt
Marine water	1.52 µg/l
Marine sediment	5.49 µg/kg dwt
Soil	2.06 µg/kg dwt
Impact on Sewage Treatment	100 mg/l

Calculation method	Used EUSES model
Remarks	For further information, please contact psr@kao.es

Derived No Effect Level (DNEL):

Worker - dermal, long-term - systemic	1.7 mg/kg bw/d
Worker - inhalative, long-term - systemic	1.2 mg/m ³
Consumer - oral, long-term - systemic	0.2 mg/kg bw/d
Consumer - dermal, long-term - systemic	0.8 mg/kg bw/d
Consumer - inhalative, long-term - systemic	0.3 mg/m ³

Calculation method	Used ECETOC TRA model
Remarks	For further information, please contact psr@kao.es

Section 4 - Guidance to check compliance with the exposure scenario

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

Chemical name	1-PROPANAMINIUM, N-(3-AMINOPROPYL)-2-HYDROXY-N,N-DIMETHYL-3-SULFO-, N-C12-14 ACYL DERIVS., HYDROXIDES, INNER SALTS
Pure substance/mixture	Mixture
REACH registration number	01-2120765740-52-XXXX
CAS No	91648-19-0
EC No (EU Index No)	293-878-1
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford GBR
Non-Emergency Telephone Number	+44 1274 267300 / +44 1274 267306
E-mail address	SDS.EMEA@univarsolutions.com

Section 1 - Title

Title	Formulation & (re)packing of substances and mixtures Washing and cleaning products
Type	Worker
Main user group	Industrial uses: Uses of substances as such or in preparations at industrial sites
Environmental release category(ies)	ERC2 - Formulation of preparations (mixtures)
Process category(ies)	PROC1 - Use in closed process, no likelihood of exposure PROC2 - Use in closed, continuous process with occasional controlled exposure PROC3 - Use in closed batch process (synthesis or formulation) PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact) PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising
Product category(ies)	PC8 - Biocidal Products (e.g. disinfectants, pest control) PC35 - Washing and cleaning products (including solvent based products)
Sector(s) of use	SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites SU10 - Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

Section 2 - Operational conditions and risk management measures

Section 2.1 - Control of environmental exposure

Environmental release category(ies) - ERC2 - Formulation of preparations (mixtures)

Amounts used

Type	Annual site tonnage
Value	<= 80.0
Units	t(ons)/year

Type	Daily amount per site
Value	<= 320
Units	kg/d

Conditions and measures related to municipal sewage treatment plant

Type	Municipal STP
Assumed domestic sewage treatment	2000 m3/d

plant flow	
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Further information

Operational conditions	Indoor use
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Control measures to prevent releases

Air	Limit release rate to air to 0 kg/d
Water	Provide onsite wastewater removal efficiency of 87.34% Limit release rate to waste water to 0.64 kg/d

Conditions and measures related to external treatment of waste for disposal

Disposal	External treatment and disposal of waste should comply with applicable local and/or national regulations
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Control of worker exposure

Title	General measures applicable to all activities
Physical form of product	Liquid
Exposure duration	Avoid carrying out operation for more than 2 hours
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Conditions and measures related to personal protection, hygiene and health evaluation	Wear suitable gloves (tested to EN 374) and eye protection
Indoor/Outdoor use	Indoor use

Process category(ies)	PROC1 - Use in closed process, no likelihood of exposure PROC3 - Use in closed batch process (synthesis or formulation) PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising
Covers concentrations up to	50%
Technical conditions and measures to control dispersion from source towards the worker	Provide a basic standard of general ventilation (1 to 3 air changes per hour)

Process category(ies)	PROC2 - Use in closed, continuous process with occasional controlled exposure
Covers concentrations up to	100%
Technical conditions and measures to control dispersion from source towards the worker	Provide a basic standard of general ventilation (1 to 3 air changes per hour)

Process category(ies)	PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact) PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
Covers concentrations up to	50%
Technical conditions and measures to control dispersion from source towards the worker	Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour)

Section 3 - Exposure estimation

Environmental release category(ies) - ERC2 - Formulation of preparations (mixtures)

Predicted No Effect Concentration (PNEC)

Freshwater	15.2 µg/l
Freshwater sediment	54.91 µg/kg dwt
Marine water	1.52 µg/l
Marine sediment	5.49 µg/kg dwt
Soil	2.06 µg/kg dwt
Impact on Sewage Treatment	100 mg/l

Calculation method	Used EUSES model
Remarks	For further information, please contact psr@kao.es

Derived No Effect Level (DNEL):

Worker - dermal, long-term - systemic	1.7 mg/kg bw/d
Worker - inhalative, long-term - systemic	1.2 mg/m ³
Consumer - oral, long-term - systemic	0.2 mg/kg bw/d
Consumer - dermal, long-term - systemic	0.8 mg/kg bw/d
Consumer - inhalative, long-term - systemic	0.3 mg/m ³

Calculation method	Used ECETOC TRA model
Remarks	For further information, please contact psr@kao.es

Section 4 - Guidance to check compliance with the exposure scenario

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

Chemical name	1-PROPANAMINIUM, N-(3-AMINOPROPYL)-2-HYDROXY-N,N-DIMETHYL-3-SULFO-, N-C12-14 ACYL DERIVS., HYDROXIDES, INNER SALTS
Pure substance/mixture	Mixture
REACH registration number	01-2120765740-52-XXXX
CAS No	91648-19-0
EC No (EU Index No)	293-878-1
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford GBR
Non-Emergency Telephone Number	+44 1274 267300 / +44 1274 267306
E-mail address	SDS.EMEA@univarsolutions.com

Section 1 - Title

Title	Formulation & (re)packing of substances and mixtures Cosmetics, personal care products
Type	Worker
Main user group	Industrial uses: Uses of substances as such or in preparations at industrial sites
Environmental release category(ies)	ERC2 - Formulation of preparations (mixtures)
Process category(ies)	PROC1 - Use in closed process, no likelihood of exposure PROC2 - Use in closed, continuous process with occasional controlled exposure PROC3 - Use in closed batch process (synthesis or formulation) PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact) PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising PROC15 - Use as laboratory reagent
Product category(ies)	PC39 - Cosmetics, personal care products
Sector(s) of use	SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites SU10 - Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

Section 2 - Operational conditions and risk management measures

Section 2.1 - Control of environmental exposure

Environmental release category(ies) - ERC2 - Formulation of preparations (mixtures)

Amounts used

Type	Annual site tonnage
Value	<= 240
Units	t(ons)/year

Type	Daily amount per site
Value	<= 450
Units	kg/d

Conditions and measures related to municipal sewage treatment plant

Type	Municipal STP
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Assumed domestic sewage treatment plant flow	2000 m3/d
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Further information

Operational conditions	Indoor use
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Control measures to prevent releases

Air	Limit release rate to air to 0 kg/d
Water	Provide onsite wastewater removal efficiency of 97% Limit release rate to waste water to 1.8 kg/d

Conditions and measures related to external treatment of waste for disposal

Disposal	External treatment and disposal of waste should comply with applicable local and/or national regulations
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Control of worker exposure

Title	General measures applicable to all activities
Covers concentrations up to	50%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Conditions and measures related to personal protection, hygiene and health evaluation	Wear suitable gloves (tested to EN 374) and eye protection
Indoor/Outdoor use	Indoor use

Process category(ies)	PROC1 - Use in closed process, no likelihood of exposure
Technical conditions and measures to control dispersion from source towards the worker	Provide a basic standard of general ventilation (1 to 3 air changes per hour)

Process category(ies)	PROC2 - Use in closed, continuous process with occasional controlled exposure PROC3 - Use in closed batch process (synthesis or formulation) PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising PROC15 - Use as laboratory reagent
Exposure duration	Avoid carrying out operation for more than 2 hours
Technical conditions and measures to control dispersion from source towards the worker	Provide a basic standard of general ventilation (1 to 3 air changes per hour)

Process category(ies)	PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact) PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
Exposure duration	Avoid carrying out operation for more than 1 hour
Technical conditions and measures to control dispersion from source towards the worker	Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour)

Process category(ies)	PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
Exposure duration	Avoid carrying out operation for more than 2 hours

Section 3 - Exposure estimation

Environmental release category(ies) - ERC2 - Formulation of preparations (mixtures)

Predicted No Effect Concentration (PNEC)

Freshwater	15.2 µg/l
Freshwater sediment	54.91 µg/kg dwt
Marine water	1.52 µg/l
Marine sediment	5.49 µg/kg dwt
Soil	2.06 µg/kg dwt
Impact on Sewage Treatment	100 mg/l

Calculation method Used EUSES model
Remarks For further information, please contact psr@kao.es

Derived No Effect Level (DNEL):

Worker - dermal, long-term - systemic	1.7 mg/kg bw/d
Worker - inhalative, long-term - systemic	1.2 mg/m ³
Consumer - oral, long-term - systemic	0.2 mg/kg bw/d
Consumer - dermal, long-term - systemic	0.8 mg/kg bw/d
Consumer - inhalative, long-term - systemic	0.3 mg/m ³

Calculation method Used ECETOC TRA model
Remarks For further information, please contact psr@kao.es

Section 4 - Guidance to check compliance with the exposure scenario

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

Chemical name	1-PROPANAMINIUM, N-(3-AMINOPROPYL)-2-HYDROXY-N,N-DIMETHYL-3-SULFO-, N-C12-14 ACYL DERIVS., HYDROXIDES, INNER SALTS
Pure substance/mixture	Mixture
REACH registration number	01-2120765740-52-XXXX
CAS No	91648-19-0
EC No (EU Index No)	293-878-1
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford GBR
Non-Emergency Telephone Number	+44 1274 267300 / +44 1274 267306
E-mail address	SDS.EMEA@univarsolutions.com

Section 1 - Title

Title	Biocidal Products (e.g. disinfectants, pest control)
Type	Worker
Main user group	Industrial uses: Uses of substances as such or in preparations at industrial sites
Environmental release category(ies)	ERC4 - Industrial use of processing aids in processes and products, not becoming part of articles
Process category(ies)	PROC1 - Use in closed process, no likelihood of exposure PROC2 - Use in closed, continuous process with occasional controlled exposure PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises PROC7 - Industrial spraying PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC10 - Roller application or brushing PROC13 - Treatment of articles by dipping and pouring PROC28 - Manual maintenance (cleaning and repair) of machinery
Product category(ies)	PC8 - Biocidal Products (e.g. disinfectants, pest control)
Sector(s) of use	SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Section 2 - Operational conditions and risk management measures

Section 2.1 - Control of environmental exposure

Environmental release category(ies) - ERC4 - Industrial use of processing aids in processes and products, not becoming part of articles

Amounts used

Type	Annual site tonnage
Value	<= 20
Units	t(ons)/year

Type	Daily amount per site
Value	<= 50
Units	kg/d

Conditions and measures related to municipal sewage treatment plant

Type	Municipal STP
Assumed domestic sewage treatment plant flow	2000 m3/d

Further information

Operational conditions	Indoor use
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Control measures to prevent releases

Air	Limit release rate to air to 0 kg/d
Water	Provide onsite wastewater removal efficiency of 87.34% Limit release rate to waste water to 2.3 kg/d

Conditions and measures related to external treatment of waste for disposal

Disposal	External treatment and disposal of waste should comply with applicable local and/or national regulations
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Control of worker exposure

Title	General measures applicable to all activities
Covers concentrations up to	1.5%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Provide a basic standard of general ventilation (1 to 3 air changes per hour)
Conditions and measures related to personal protection, hygiene and health evaluation	Wear suitable gloves (tested to EN 374) and eye protection
Indoor/Outdoor use	Indoor use

Process category(ies)	PROC1 - Use in closed process, no likelihood of exposure PROC2 - Use in closed, continuous process with occasional controlled exposure PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises PROC13 - Treatment of articles by dipping and pouring
Technical conditions and measures to control dispersion from source towards the worker	Use with local exhaust ventilation

Process category(ies)	PROC7 - Industrial spraying
Exposure duration	Avoid carrying out operation for more than 2 hours
Technical conditions and measures to control dispersion from source towards the worker	Use with local exhaust ventilation

Process category(ies)	PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC28 - Manual maintenance (cleaning and repair) of machinery
Exposure duration	Avoid carrying out operation for more than 1 hour

Process category(ies)	PROC10 - Roller application or brushing
Exposure duration	Avoid carrying out operation for more than 2 hours

Process category(ies)	PROC13 - Treatment of articles by dipping and pouring
Exposure duration	Avoid carrying out operation for more than 4 hours

Section 3 - Exposure estimation

Environmental release category(ies) - ERC4 - Industrial use of processing aids in processes and products, not becoming

part of articles

**Predicted No Effect Concentration
(PNEC)**

Freshwater	15.2 µg/l
Freshwater sediment	54.91 µg/kg dwt
Marine water	1.52 µg/l
Marine sediment	5.49 µg/kg dwt
Soil	2.06 µg/kg dwt
Impact on Sewage Treatment	100 mg/l

Calculation method

Used EUSES model

Remarks

For further information, please contact psr@kao.es

Derived No Effect Level (DNEL):

Worker - dermal, long-term - systemic	1.7 mg/kg bw/d
Worker - inhalative, long-term - systemic	1.2 mg/m ³
Consumer - oral, long-term - systemic	0.2 mg/kg bw/d
Consumer - dermal, long-term - systemic	0.8 mg/kg bw/d
Consumer - inhalative, long-term - systemic	0.3 mg/m ³

Calculation method

Used ECETOC TRA model

Remarks

For further information, please contact psr@kao.es

Section 4 - Guidance to check compliance with the exposure scenario

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

Chemical name	1-PROPANAMINIUM, N-(3-AMINOPROPYL)-2-HYDROXY-N,N-DIMETHYL-3-SULFO-, N-C12-14 ACYL DERIVS., HYDROXIDES, INNER SALTS
Pure substance/mixture	Mixture
REACH registration number	01-2120765740-52-XXXX
CAS No	91648-19-0
EC No (EU Index No)	293-878-1
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford GBR
Non-Emergency Telephone Number	+44 1274 267300 / +44 1274 267306
E-mail address	SDS.EMEA@univarsolutions.com

Section 1 - Title

Title	Metal surface treatment products, including galvanic and electroplating products
Type	Worker
Main user group	Industrial uses: Uses of substances as such or in preparations at industrial sites
Environmental release category(ies)	ERC5 - Industrial use resulting in inclusion into or onto a matrix
Process category(ies)	PROC7 - Industrial spraying PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC10 - Roller application or brushing PROC13 - Treatment of articles by dipping and pouring PROC21 - Low energy manipulation of substances bound in materials and/or articles
Product category(ies)	PC14 - Metal surface treatment products, including galvanic and electroplating products
Sector(s) of use	SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites SU17 - General manufacturing

Section 2 - Operational conditions and risk management measures

Section 2.1 - Control of environmental exposure

Environmental release category(ies) - ERC5 - Industrial use resulting in inclusion into or onto a matrix

Amounts used

Type	Annual site tonnage
Value	<= 20
Units	t(ons)/year

Type	Daily amount per site
Value	<= 25
Units	kg/d

Conditions and measures related to municipal sewage treatment plant

Type	Municipal STP
Assumed domestic sewage treatment plant flow	2000 m3/d

Further information

Operational conditions	Indoor use
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Control measures to prevent releases

Air	Limit release rate to air to 0 kg/d
Water	Provide onsite wastewater removal efficiency of 87.34% Limit release rate to waste water to 1.25 kg/d

Conditions and measures related to external treatment of waste for disposal

Disposal	External treatment and disposal of waste should comply with applicable local and/or national regulations
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Control of worker exposure

Title	General measures applicable to all activities
Covers concentrations up to	1.5%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Provide a basic standard of general ventilation (1 to 3 air changes per hour)
Conditions and measures related to personal protection, hygiene and health evaluation	Wear suitable gloves (tested to EN 374) and eye protection
Indoor/Outdoor use	Indoor use

Process category(ies)	PROC7 - Industrial spraying
Exposure duration	Avoid carrying out operation for more than 2 hours
Conditions and measures related to personal protection, hygiene and health evaluation	Wear a respirator conforming to EN140.

Process category(ies)	PROC10 - Roller application or brushing PROC21 - Low energy manipulation of substances bound in materials and/or articles
Exposure duration	Avoid carrying out operation for more than 2 hours

Section 3 - Exposure estimation

Environmental release category(ies) - ERC5 - Industrial use resulting in inclusion into or onto a matrix

Predicted No Effect Concentration (PNEC)

Freshwater	15.2 µg/l
Freshwater sediment	54.91 µg/kg dwt
Marine water	1.52 µg/l
Marine sediment	5.49 µg/kg dwt
Soil	2.06 µg/kg dwt
Impact on Sewage Treatment	100 mg/l

Calculation method	Used EUSES model
Remarks	For further information, please contact psr@kao.es

Derived No Effect Level (DNEL):

Worker - dermal, long-term - systemic	1.7 mg/kg bw/d
Worker - inhalative, long-term - systemic	1.2 mg/m ³

Consumer - oral, long-term - systemic	0.2 mg/kg bw/d
Consumer - dermal, long-term - systemic	0.8 mg/kg bw/d
Consumer - inhalative, long-term - systemic	0.3 mg/m ³

Calculation method	Used ECETOC TRA model
Remarks	For further information, please contact psr@kao.es

Section 4 - Guidance to check compliance with the exposure scenario

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

Chemical name	1-PROPANAMINIUM, N-(3-AMINOPROPYL)-2-HYDROXY-N,N-DIMETHYL-3-SULFO-, N-C12-14 ACYL DERIVS., HYDROXIDES, INNER SALTS
Pure substance/mixture	Mixture
REACH registration number	01-2120765740-52-XXXX
CAS No	91648-19-0
EC No (EU Index No)	293-878-1
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford GBR
Non-Emergency Telephone Number	+44 1274 267300 / +44 1274 267306
E-mail address	SDS.EMEA@univarsolutions.com

Section 1 - Title

Title	Foaming agent
Type	Worker
Main user group	Industrial uses: Uses of substances as such or in preparations at industrial sites
Environmental release category(ies)	ERC4 - Industrial use of processing aids in processes and products, not becoming part of articles
Process category(ies)	PROC1 - Use in closed process, no likelihood of exposure PROC3 - Use in closed batch process (synthesis or formulation) PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact) PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC12 - Use of blow agents in manufacture of foam
Sector(s) of use	SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Section 2 - Operational conditions and risk management measures

Section 2.1 - Control of environmental exposure

Environmental release category(ies) - ERC4 - Industrial use of processing aids in processes and products, not becoming part of articles

Amounts used

Type	Annual site tonnage
Value	<= 5
Units	t(ons)/year

Type	Daily amount per site
Value	<= 250
Units	kg/d

Conditions and measures related to municipal sewage treatment plant

Type	Municipal STP
Assumed domestic sewage treatment plant flow	2000 m3/d

Further information

Operational conditions	Indoor use
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Control measures to prevent releases

Air	Limit release rate to air to 0 kg/d
Water	Provide onsite wastewater removal efficiency of 87.34% Limit release rate to waste water to 2.3 kg/d

Conditions and measures related to external treatment of waste for disposal

Disposal	External treatment and disposal of waste should comply with applicable local and/or national regulations
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Control of worker exposure

Title	General measures applicable to all activities
Covers concentrations up to	1.5%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Provide a basic standard of general ventilation (1 to 3 air changes per hour)
Conditions and measures related to personal protection, hygiene and health evaluation	Wear suitable gloves tested to EN 374
Indoor/Outdoor use	Indoor use

Section 3 - Exposure estimation

Environmental release category(ies) - ERC4 - Industrial use of processing aids in processes and products, not becoming part of articles

Predicted No Effect Concentration (PNEC)

Freshwater	15.2 µg/l
Freshwater sediment	54.91 µg/kg dwt
Marine water	1.52 µg/l
Marine sediment	5.49 µg/kg dwt
Soil	2.06 µg/kg dwt
Impact on Sewage Treatment	100 mg/l

Calculation method	Used EUSES model
Remarks	For further information, please contact psr@kao.es

Derived No Effect Level (DNEL):

Worker - dermal, long-term - systemic	1.7 mg/kg bw/d
Worker - inhalative, long-term - systemic	1.2 mg/m ³
Consumer - oral, long-term - systemic	0.2 mg/kg bw/d
Consumer - dermal, long-term - systemic	0.8 mg/kg bw/d
Consumer - inhalative, long-term - systemic	0.3 mg/m ³

Calculation method	Used ECETOC TRA model
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Remarks

For further information, please contact psr@kao.es

Section 4 - Guidance to check compliance with the exposure scenario

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

Chemical name 1-PROPANAMINIUM, N-(3-AMINOPROPYL)-2-HYDROXY-N,N-DIMETHYL-3-SULFO-, N-C12-14 ACYL DERIVS., HYDROXIDES, INNER SALTS

Pure substance/mixture Mixture

REACH registration number 01-2120765740-52-XXXX

CAS No 91648-19-0

EC No (EU Index No) 293-878-1

Supplier Univar Solutions UK Ltd
Aquarius House
6 Mid Point Business Park
Bradford
GBR

Non-Emergency Telephone Number +44 1274 267300 / +44 1274 267306

E-mail address SDS.EMEA@univarsolutions.com

Section 1 - Title

Title Emulsifier

Type Worker

Main user group Industrial uses: Uses of substances as such or in preparations at industrial sites

Environmental release category(ies) ERC4 - Industrial use of processing aids in processes and products, not becoming part of articles

Process category(ies) PROC1 - Use in closed process, no likelihood of exposure
PROC3 - Use in closed batch process (synthesis or formulation)
PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises
PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact)
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Sector(s) of use SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Section 2 - Operational conditions and risk management measures

Section 2.1 - Control of environmental exposure

Environmental release category(ies) - ERC4 - Industrial use of processing aids in processes and products, not becoming part of articles

Amounts used

Type	Annual site tonnage
Value	<= 7
Units	t(ons)/year

Type	Daily amount per site
Value	<= 350
Units	kg/d

Conditions and measures related to municipal sewage treatment plant

Type	Municipal STP
Assumed domestic sewage treatment plant flow	2000 m3/d

Further information

Operational conditions	Indoor use
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Control measures to prevent releases

Air	Limit release rate to air to 0 kg/d
Water	Provide onsite wastewater removal efficiency of 87.34% Limit release rate to waste water to 2.3 kg/d

Conditions and measures related to external treatment of waste for disposal

Disposal	External treatment and disposal of waste should comply with applicable local and/or national regulations
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Control of worker exposure

Title	General measures applicable to all activities
Covers concentrations up to	1.5%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Provide a basic standard of general ventilation (1 to 3 air changes per hour)
Conditions and measures related to personal protection, hygiene and health evaluation	Wear suitable gloves tested to EN 374
Indoor/Outdoor use	Indoor use

Section 3 - Exposure estimation

Environmental release category(ies) - ERC4 - Industrial use of processing aids in processes and products, not becoming part of articles

Predicted No Effect Concentration (PNEC)

Freshwater	15.2 µg/l
Freshwater sediment	54.91 µg/kg dwt
Marine water	1.52 µg/l
Marine sediment	5.49 µg/kg dwt
Soil	2.06 µg/kg dwt
Impact on Sewage Treatment	100 mg/l

Calculation method	Used EUSES model
Remarks	For further information, please contact psr@kao.es

Derived No Effect Level (DNEL):

Worker - dermal, long-term - systemic	1.7 mg/kg bw/d
Worker - inhalative, long-term - systemic	1.2 mg/m ³
Consumer - oral, long-term - systemic	0.2 mg/kg bw/d
Consumer - dermal, long-term - systemic	0.8 mg/kg bw/d
Consumer - inhalative, long-term - systemic	0.3 mg/m ³

Calculation method	Used ECETOC TRA model
Remarks	For further information, please contact psr@kao.es

Section 4 - Guidance to check compliance with the exposure scenario

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

Chemical name	1-PROPANAMINIUM, N-(3-AMINOPROPYL)-2-HYDROXY-N,N-DIMETHYL-3-SULFO-, N-C12-14 ACYL DERIVS., HYDROXIDES, INNER SALTS
Pure substance/mixture	Mixture
REACH registration number	01-2120765740-52-XXXX
CAS No	91648-19-0
EC No (EU Index No)	293-878-1
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford GBR
Non-Emergency Telephone Number	+44 1274 267300 / +44 1274 267306
E-mail address	SDS.EMEA@univarsolutions.com

Section 1 - Title

Title	Waste treatment measures : General manufacturing
Type	Worker
Main user group	Industrial uses: Uses of substances as such or in preparations at industrial sites
Environmental release category(ies)	ERC4 - Industrial use of processing aids in processes and products, not becoming part of articles
Sector(s) of use	SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Section 2 - Operational conditions and risk management measures

Section 2.1 - Control of environmental exposure

Environmental release category(ies) - ERC4 - Industrial use of processing aids in processes and products, not becoming part of articles

Amounts used

Type	Annual site tonnage
Value	<= 8
Units	t(ons)/year

Type	Daily amount per site
Value	<= 22
Units	kg/d

Conditions and measures related to municipal sewage treatment plant

Type	Municipal STP
Assumed domestic sewage treatment plant flow	2000 m3/d

Control measures to prevent releases

Air	Limit release rate to air to 0 kg/d
Water	Provide onsite wastewater removal efficiency of 87.34% Limit release rate to waste water to 0.701 kg/d

Conditions and measures related to external treatment of waste for disposal

Disposal	External treatment and disposal of waste should comply with applicable local and/or national regulations
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Section 3 - Exposure estimation

Environmental release category(ies) - ERC4 - Industrial use of processing aids in processes and products, not becoming part of articles

**Predicted No Effect Concentration
(PNEC)**

Freshwater	15.2 µg/l
Freshwater sediment	54.91 µg/kg dw
Marine water	1.52 µg/l
Marine sediment	5.49 µg/kg dw
Soil	2.06 µg/kg dw
Impact on Sewage Treatment	100 mg/l

Calculation method Used EUSES model
Remarks For further information, please contact psr@kao.es

Derived No Effect Level (DNEL):

Worker - dermal, long-term - systemic	1.7 mg/kg bw/d
Worker - inhalative, long-term - systemic	1.2 mg/m ³
Consumer - oral, long-term - systemic	0.2 mg/kg bw/d
Consumer - dermal, long-term - systemic	0.8 mg/kg bw/d
Consumer - inhalative, long-term - systemic	0.3 mg/m ³

Section 4 - Guidance to check compliance with the exposure scenario

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.
Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

Chemical name	1-PROPANAMINIUM, N-(3-AMINOPROPYL)-2-HYDROXY-N,N-DIMETHYL-3-SULFO-, N-C12-14 ACYL DERIVS., HYDROXIDES, INNER SALTS
Pure substance/mixture	Mixture
REACH registration number	01-2120765740-52-XXXX
CAS No	91648-19-0
EC No (EU Index No)	293-878-1
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford GBR
Non-Emergency Telephone Number	+44 1274 267300 / +44 1274 267306
E-mail address	SDS.EMEA@univarsolutions.com

Section 1 - Title

Title	Waste treatment measures : Cosmetics, personal care products
Type	Worker
Main user group	Industrial uses: Uses of substances as such or in preparations at industrial sites
Environmental release category(ies)	ERC4 - Industrial use of processing aids in processes and products, not becoming part of articles
Sector(s) of use	SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Section 2 - Operational conditions and risk management measures

Section 2.1 - Control of environmental exposure

Environmental release category(ies) - ERC4 - Industrial use of processing aids in processes and products, not becoming part of articles

Amounts used

Type	Annual site tonnage
Value	<= 4.8
Units	t(ons)/year

Type	Daily amount per site
Value	<= 13
Units	kg/d

Conditions and measures related to municipal sewage treatment plant

Type	Municipal STP
Assumed domestic sewage treatment plant flow	2000 m3/d

Control measures to prevent releases

Air	Limit release rate to air to 0 kg/d
Water	Provide onsite wastewater removal efficiency of 87.34% Limit release rate to waste water to 0.422 kg/d

Conditions and measures related to external treatment of waste for disposal

Disposal	External treatment and disposal of waste should comply with applicable local and/or national regulations
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Section 3 - Exposure estimation

Environmental release category(ies) - ERC4 - Industrial use of processing aids in processes and products, not becoming part of articles

**Predicted No Effect Concentration
(PNEC)**

Freshwater	15.2 µg/l
Freshwater sediment	54.91 µg/kg dwt
Marine water	1.52 µg/l
Marine sediment	5.49 µg/kg dwt
Soil	2.06 µg/kg dwt
Impact on Sewage Treatment	100 mg/l

Calculation method Used EUSES model
Remarks For further information, please contact psr@kao.es

Derived No Effect Level (DNEL):

Worker - dermal, long-term - systemic	1.7 mg/kg bw/d
Worker - inhalative, long-term - systemic	1.2 mg/m ³
Consumer - oral, long-term - systemic	0.2 mg/kg bw/d
Consumer - dermal, long-term - systemic	0.8 mg/kg bw/d
Consumer - inhalative, long-term - systemic	0.3 mg/m ³

Section 4 - Guidance to check compliance with the exposure scenario

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.
Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

Chemical name	1-PROPANAMINIUM, N-(3-AMINOPROPYL)-2-HYDROXY-N,N-DIMETHYL-3-SULFO-, N-C12-14 ACYL DERIVS., HYDROXIDES, INNER SALTS
Pure substance/mixture	Mixture
REACH registration number	01-2120765740-52-XXXX
CAS No	91648-19-0
EC No (EU Index No)	293-878-1
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford GBR
Non-Emergency Telephone Number	+44 1274 267300 / +44 1274 267306
E-mail address	SDS.EMEA@univarsolutions.com

Section 1 - Title

Title	Cosmetics, personal care products
Type	Consumer
Main user group	Consumer uses: Private households (= general public = consumers)
Environmental release category(ies)	ERC8a - Wide dispersive indoor use of processing aids in open systems ERC8d - Wide dispersive outdoor use of processing aids in open systems
Product category(ies)	PC39 - Cosmetics, personal care products
Sector(s) of use	SU21 - Consumer uses

Section 2 - Operational conditions and risk management measures

Section 2.1 - Control of environmental exposure

Environmental release category(ies) - ERC8a - Wide dispersive indoor use of processing aids in open systems
- ERC8d - Wide dispersive outdoor use of processing aids in open systems

Amounts used

Type	Annual site tonnage
Value	<= 240
Units	t(ons)/year

Type	Daily amount per site
Value	<= 0.026
Units	kg/d

Conditions and measures related to municipal sewage treatment plant

Type	Municipal STP
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Control measures to prevent releases

Air	Limit release rate to air to 0 kg/d
Water	Provide onsite wastewater removal efficiency of 87.34% Limit release rate to waste water to 0.026 kg/d

Conditions and measures related to external treatment of waste for disposal

Disposal	External treatment and disposal of waste should comply with applicable local and/or national regulations
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Section 3 - Exposure estimation

Environmental release category(ies) - ERC8a - Wide dispersive indoor use of processing aids in open systems
- ERC8d - Wide dispersive outdoor use of processing aids in open systems

**Predicted No Effect Concentration
(PNEC)**

Freshwater	15.2 µg/l
Freshwater sediment	54.91 µg/kg dwt
Marine water	1.52 µg/l
Marine sediment	5.49 µg/kg dwt
Soil	2.06 µg/kg dwt
Impact on Sewage Treatment	100 mg/l

Calculation method Used EUSES model
Remarks For further information, please contact psr@kao.es

Derived No Effect Level (DNEL):

Worker - dermal, long-term - systemic	1.7 mg/kg bw/d
Worker - inhalative, long-term - systemic	1.2 mg/m ³
Consumer - oral, long-term - systemic	0.2 mg/kg bw/d
Consumer - dermal, long-term - systemic	0.8 mg/kg bw/d
Consumer - inhalative, long-term - systemic	0.3 mg/m ³

Section 4 - Guidance to check compliance with the exposure scenario

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.
Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.