

SAFETY DATA SHEET

According to REACH etc. (Amendment etc.) (EU Exit) Regulations 2019

schülke 

mucocit® T **No Change Service!**

Version
05.02

Revision Date:
19.09.2022

Date of last issue: 24.06.2022

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

1.1 Product identifier

Trade name : mucocit® T

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

Use of the Sub-
stance/Mixture : Disinfectants

Recommended restrictions
on use : Restricted to professional users.

1.3 Details of the supplier of the safety data sheet

Producer : Schülke & Mayr GmbH
Robert-Koch-Str. 2

22851 Norderstedt
Germany
Telephone: +49 (0)40/ 52100-0
Telefax: +49 (0)40/ 52100318
mail@schuelke.com
www.schuelke.com

Supplier : Schülke & Mayr UK Ltd.
Cygnet House
1, Jenkin Road, Meadowhall

Sheffield S9 1AT
United Kingdom
Telephone: +44 114 254 35 00
Telefax: +44 114 254 35 01
mail.uk@schulke.com

E-mail address of person
responsible for the
SDS/Contact person : Application Specialists
+49 (0)40/ 521 00 666
AD@schuelke.com
(Schülke & Mayr UK Ltd.: +44-1142543500)

1.4 Emergency telephone number

Emergency telephone num-
ber : Carechem 24 International: +44 1235 239670

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008) as amended by The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019)

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Acute toxicity, Category 4	H302: Harmful if swallowed.
Skin corrosion, Sub-category 1B	H314: Causes severe skin burns and eye damage.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Respiratory sensitisation, Category 1	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Specific target organ toxicity - repeated exposure, Category 2	H373: May cause damage to organs through prolonged or repeated exposure.
Short-term (acute) aquatic hazard, Category 1	H400: Very toxic to aquatic life.
Long-term (chronic) aquatic hazard, Category 2	H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008) as amended by The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019)

Hazard pictograms

:



Signal word

:

Danger

Hazard statements

:

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H373 May cause damage to organs (Gastrointestinal tract, Immune system) through prolonged or repeated exposure if swallowed.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

:

Prevention:

P260 Do not breathe vapours.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immedi-

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ately all contaminated clothing. Rinse skin with water or shower.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

Hazardous components which must be listed on the label:

didecyldimethylammonium chloride
Amines, N-C12-14-alkyltrimethylenedi-
piperazine; [solid]
Orange, sweet, ext.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Solution of the following substances with harmless additives.

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5 500-241-6 - - - - - -	Acute Tox. 4; H302 Eye Dam. 1; H318 Aquatic Chronic 3; H412 specific concentration limit Eye Dam. 1; H318 > 10 % Eye Irrit. 2; H319 > 1 - < 10 %	>= 3 - < 10
propan-2-ol	67-63-0 200-661-7 603-117-00-0 01-2119457558-25-XXXX	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 (Central nervous system)	>= 1 - < 10
tetrasodium ethylene diamine tetraacetate	64-02-8 200-573-9 607-428-00-2 01-2119486762-27-XXXX	Acute Tox. 4; H302 Acute Tox. 4; H332 Eye Dam. 1; H318 STOT RE 2; H373	>= 3 - < 10
Cocosalkylpropylendiaminbiguanidiniumdiacetat	- - - 939-650-3	Acute Tox. 4; H302 Skin Corr. 1C;	>= 3 - < 5

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	<p>--- 01-2119980967-14-XXXX</p>	<p>H314 Eye Dam. 1; H318 STOT RE 2; H373 Aquatic Acute 1; H400 Aquatic Chronic 1; H410</p> <hr/> <p>M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 1</p>	
didecyldimethylammonium chloride	<p>7173-51-5 230-525-2 612-131-00-6 01-2119945987-15-XXXX</p>	<p>Acute Tox. 3; H301 Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 2; H411</p> <hr/> <p>M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 1</p>	>= 3 - < 5
Amines, N-C12-14-alkyltrimethylenedi-	<p>90640-43-0 292-562-0 --- 01-2119957843-25-XXXX</p>	<p>Acute Tox. 3; H301 Skin Corr. 1B; H314 Eye Dam. 1; H318 STOT RE 1; H372 (Gastrointestinal tract, Immune system) Aquatic Acute 1; H400 Aquatic Chronic 2; H411</p> <hr/> <p>M-Factor (Acute aquatic toxicity): 100 M-Factor (Chronic aquatic toxicity): 1</p>	>= 3 - < 5
piperazine; [solid]	<p>110-85-0 203-808-3 612-057-00-4 01-2119480384-35-XXXX</p>	<p>Flam. Sol. 1; H228 Skin Corr. 1B; H314 Eye Dam. 1; H318 Resp. Sens. 1; H334 Skin Sens. 1; H317 Repr. 2; H361fd</p>	>= 1 - < 3
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	<p>2372-82-9 219-145-8 ---</p>	<p>Acute Tox. 3; H301 Skin Corr. 1B; H314</p>	>= 1 - < 2.5

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	01-2119980592-29-XXXX	Eye Dam. 1; H318 STOT RE 2; H373 (Kidney) Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 1	
Orange, sweet, ext.	8028-48-6 232-433-8 --- 01-2119493353-35-XXXX	Flam. Liq. 3; H226 Skin Irrit. 2; H315 Skin Sens. 1; H317 Asp. Tox. 1; H304 Aquatic Chronic 2; H411	$\geq 1 - < 2.5$
tributyl phosphate	126-73-8 204-800-2 015-014-00-2 01-2119492859-14-XXXX	Acute Tox. 4; H302 Skin Irrit. 2; H315 Carc. 2; H351 Aquatic Chronic 3; H412	$\geq 0.25 - < 1$
trisodium nitrilotriacetate	5064-31-3 225-768-6 607-620-00-6 01-2119519239-36-XXXX	Acute Tox. 4; H302 Eye Irrit. 2; H319 Carc. 2; H351 specific concentration limit Carc. 2; H351 $\geq 5\%$	$\geq 0.1 - < 1$
N-dodecylpropane-1,3-diamine	5538-95-4 226-902-6 --- ---	Acute Tox. 4; H302 Skin Corr. 1A; H314 Eye Dam. 1; H318 Aquatic Acute 1; H400 M-Factor (Acute aquatic toxicity): 1	$\geq 0.1 - < 0.25$
dodecylamine	124-22-1 204-690-6 --- ---	Skin Corr. 1B; H314 Eye Dam. 1; H318 STOT SE 3; H335 (Respiratory system) STOT RE 2; H373 (Gastro-intestinal system, Liver, Immune system) Asp. Tox. 1; H304 Aquatic Acute 1; H400	$\geq 0.0025 - < 0.025$

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		Aquatic Chronic 2; H411	
		M-Factor (Acute aquatic toxicity): 10	

For explanation of abbreviations see section 16.

Other information

EG: 232-433-8/ CAS: 8028-48-6 CONTAINS: >/= 93 % Limonene CAS 5989-27-5

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : Take off all contaminated clothing immediately.
- If inhaled : Move to fresh air.
No artificial respiration, mouth-to-mouth or mouth to nose. Use
suitable instruments/apparatus.
Call a physician immediately.
- In case of skin contact : Wash off immediately with plenty of water for at least 15
minutes.
Call a physician immediately.
- In case of eye contact : In case of eye contact, remove contact lens and rinse imme-
diately with plenty of water, also under the eyelids, for at least
15 minutes.
Call a physician immediately.
- If swallowed : Do NOT induce vomiting.
Rinse mouth with water.
Give small amounts of water to drink.
Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Risks : Harmful if swallowed.
May cause an allergic skin reaction.
Causes serious eye damage.
May cause allergy or asthma symptoms or breathing difficul-
ties if inhaled.
May cause damage to organs through prolonged or repeated
exposure if swallowed.
Causes severe burns.

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4.3 Indication of any immediate medical attention and special treatment needed

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Dry powder
Foam
Carbon dioxide (CO₂)
Water spray jet

Unsuitable extinguishing media : Do NOT use water jet.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Heating or fire can release toxic gas.

Hazardous combustion products : No hazardous combustion products are known

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Increased risk of slipping in the presence of leaked / spilled product.
Use personal protective equipment.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.
Prevent spreading over a wide area (e.g. by containment or oil barriers).

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Wipe up with absorbent material (e.g. cloth, fleece).
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

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6.4 Reference to other sections

see Section 8 + 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Ensure adequate ventilation.
Do not breathe vapour.

Advice on protection against fire and explosion : No special protective measures against fire required.

Hygiene measures : Keep away from food and drink.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store at room temperature in the original container.

Further information on storage conditions : Keep away from direct sunlight. Keep away from heat. Keep container tightly closed. Recommended storage temperature: 5 - 25°C

Advice on common storage : Do not store near acids.

7.3 Specific end use(s)

Specific use(s) : none

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
propan-2-ol	67-63-0	TWA	400 ppm 999 mg/m ³	GB EH40
		STEL	500 ppm 1,250 mg/m ³	GB EH40
piperazine; [solid]	110-85-0	TWA	0.1 mg/m ³	GB EH40
		Further information: Capable of causing occupational asthma.		
		STEL	0.3 mg/m ³	GB EH40
		Further information: Capable of causing occupational asthma.		
		TWA	0.1 mg/m ³	2000/39/EC
		Further information: Indicative		
		STEL	0.3 mg/m ³	2000/39/EC
		Further information: Indicative		
tributyl phosphate	126-73-8	TWA	5 mg/m ³	GB EH40
		STEL	5 mg/m ³	GB EH40

Derived No Effect Level (DNEL):

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Substance name	End Use	Exposure routes	Potential health effects	Value
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	Workers	Inhalation	Long-term systemic effects	294 mg/m3
Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-	Workers	Inhalation	Long-term systemic effects	117.544 mg/m3
	Workers	Dermal	Long-term systemic effects	66.667 mg/kg
propan-2-ol	Workers	Skin contact	Long-term systemic effects	888 mg/kg
	Workers	Inhalation	Long-term systemic effects	500 mg/m3
tetrasodium ethylene diamine tetraacetate	Workers	Inhalation	Acute local effects, Acute systemic effects	3 mg/m3
	Workers	Inhalation	Long-term local effects, Long-term systemic effects	1.5 mg/m3
Cocosalkylpropylendiaminbiguanidiniumdiacetat	Workers	Inhalation	Long-term systemic effects	0.88 mg/m3
	Workers	Skin contact	Long-term systemic effects	1 mg/kg
didecyldimethylammonium chloride	Workers	Inhalation	Acute systemic effects, Long-term systemic effects	5.39 mg/m3
	Workers	Dermal	Acute systemic effects, Long-term systemic effects	1.55 mg/kg
Amines, N-C12-14-alkyltrimethylenedi-	Workers	Inhalation	Long-term systemic effects	0.0395 mg/m3
	Workers	Dermal	Long-term systemic effects	0.0056 mg/kg bw/day
piperazine; [solid]	Workers	Inhalation	Long-term systemic effects	0.1 mg/m3
	Workers	Skin contact	Long-term systemic effects	0.014 mg/kg
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	Workers	Inhalation	Long-term systemic effects	2.35 mg/m3
	Workers	Skin contact	Long-term systemic effects	0.91 mg/kg
Orange, sweet, ext.	Workers	Dermal	Acute local effects	185800 mg/m3
	Workers	Dermal	Long-term systemic effects	8.89 mg/kg bw/day
	Workers	Inhalation	Long-term systemic effects	31.1 mg/m3
tributyl phosphate	Workers	Inhalation	Acute systemic effects	12.52 mg/m3

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	Workers	Inhalation	Acute local effects	12.52 mg/m3
	Workers	Inhalation	Long-term systemic effects	3.13 mg/m3
	Workers	Inhalation	Long-term local effects	3.13 mg/m3
	Workers	Skin contact	Acute systemic effects	1.78 mg/kg
	Workers	Skin contact	Acute local effects	1.78 mg/kg
	Workers	Skin contact	Long-term systemic effects	0.44 mg/kg
	Workers	Skin contact	Long-term local effects	0.44 mg/kg
trisodium nitrilotriacetate	Workers	Inhalation	Short-term exposure, Systemic effects, Local effects	5.25 mg/m3
	Workers	Inhalation	Long-term exposure, Systemic effects, Local effects	3.5 mg/m3

Predicted No Effect Concentration (PNEC):

Substance name	Environmental Compartment	Value
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	Fresh water	0.074 mg/l
	Marine water	0.0074 mg/l
	Intermittent use/release	0.015 mg/l
	Sewage treatment plant	1.4 mg/l
	Soil	0.1 mg/kg
	Fresh water sediment	0.604 mg/kg
	Marine sediment	0.0604 mg/kg
Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-	Fresh water	0.016 mg/l
	Intermittent use/release	0.159 mg/l
	Marine water	0.002 mg/l
	Sewage treatment plant	77.063 mg/l
	Fresh water sediment	15.19 mg/kg dry weight (d.w.)
	Marine sediment	15.91 mg/kg dry weight (d.w.)
	Soil	4.423 mg/kg dry weight (d.w.)
propan-2-ol	Fresh water	140.9 mg/l
	Marine water	140.9 mg/l
	Fresh water sediment	552 mg/kg
	Marine sediment	552 mg/kg
	Soil	28 mg/kg
	Intermittent use/release	140.9 mg/l
	Effects on waste water treatment plants	2251 mg/l
tetrasodium ethylene diamine tetraacetate	Oral	160 mg/kg food
	Fresh water	2.2 mg/l
	Marine water	0.22 mg/l
	Soil	0.72 mg/kg

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	Sewage treatment plant	43 mg/l
	Intermittent use/release	1.2 mg/l
Cocosalkylpropylendiamin- biguanidiniumdiacetat	Fresh water	0.0004 mg/l
	Marine water	0.00004 mg/l
	Effects on waste water treatment plants	1 mg/l
	Fresh water sediment	10 mg/kg
	Marine sediment	1 mg/kg
	Soil	3.7 mg/kg
didecyldimethylammonium chlo- ride	Fresh water	0.002 mg/l
	Marine water	0.0002 mg/l
	Fresh water sediment	2.83 mg/kg
	Marine sediment	0.28 mg/kg
	Sewage treatment plant	0.595 mg/l
	Soil	1.4 mg/kg
Amines, N-C12-14- alkyltrimethylenedi-	Fresh water	0.0032 mg/l
	Marine water	0.00032 mg/l
	Sewage treatment plant	0.205 mg/l
	Intermittent use/release	0.00065 mg/l
	Marine sediment	0.172 mg/kg dry weight (d.w.)
	Fresh water sediment	1.72 mg/kg dry weight (d.w.)
	Soil	10 mg/kg dry weight (d.w.)
piperazine; [solid]	Fresh water	1.25 mg/l
	Marine water	0.125 mg/l
	Fresh water sediment	4.5 mg/kg
	Marine sediment	0.45 mg/kg
	Soil	11.5 mg/kg
	Effects on waste water treatment plants	54 mg/kg
	Intermittent use/release	1.25 mg/l
N-(3-aminopropyl)-N- dodecylpropane-1,3-diamine	Fresh water	0.001 mg/l
	Marine water	0.0001 mg/l
	Fresh water sediment	8.5 mg/kg
	Marine sediment	0.85 mg/kg
	Soil	45.34 mg/kg
	Sewage treatment plant	1.33 mg/l
Orange, sweet, ext.	Fresh water	0.0054 mg/l
	Marine water	0.00054 mg/l
	Intermittent use/release	0.00577 mg/l
	Fresh water sediment	0.13 mg/kg dry weight (d.w.)
	Marine sediment	0.013 mg/kg dry weight (d.w.)
	Soil	0.261 mg/kg dry weight (d.w.)
	Sewage treatment plant	2.1 mg/l
tributyl phosphate	Fresh water	0.082 mg/l
	Marine water	0.0082 mg/l

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	Fresh water sediment	18.4 mg/kg dry weight (d.w.)
	Marine sediment	1.84 mg/kg dry weight (d.w.)
	Soil	3.63 mg/kg dry weight (d.w.)
	Sewage treatment plant	1 mg/l
trisodium nitrilotriacetate	Fresh water	0.93 mg/l
	Marine water	0.093 mg/l
	Fresh water sediment	3.64 mg/kg
	Marine sediment	0.364 mg/kg
	Sewage treatment plant	540 mg/l
	Intermittent use/release	0.915 mg/l
	Soil	0.182 mg/kg

8.2 Exposure controls

Engineering measures

Ensure that eyewash stations and safety showers are close to the workstation location.
Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection : Safety glasses with side-shields conforming to EN166

Hand protection
Directive : The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Remarks : Splash protection: disposable nitrile rubber gloves e.g. Dermatril (layer thickness: 0.11 mm) made by KCL or gloves from other manufacturers offering the same protection. Prolonged contact: Nitrile rubber gloves e.g. Camatril (>480 Min., layer thickness: 0,40 mm) or butyl rubber gloves e.g. Butoject (>480 Min., layer thickness: 0,70 mm) made by KCL or gloves from other manufacturers offering the same protection.

Skin and body protection : Wear as appropriate:
Chemical resistant apron

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

Protective measures : Avoid contact with skin and eyes.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid

Colour : blue

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Odour	:	pleasant
Odour Threshold	:	not determined
pH	:	10.9 Concentration: 100 %
Melting point/freezing point	:	No data available
Decomposition temperature	:	No data available
Boiling point/boiling range	:	100 °C
Flash point	:	> 61 °C Not classified due to data which are conclusive although insufficient for classification.
Evaporation rate	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	Not applicable
Relative vapour density	:	No data available
Density	:	ca. 1.03 g/cm ³ (20 °C)
Solubility(ies) Water solubility	:	completely soluble (20 °C)
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Viscosity Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

9.2 Other information

Flammability (liquids)	:	Does not sustain combustion.
Metal corrosion rate	:	< 6.25 mm/a Not corrosive to metals

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SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

Hazardous reactions : None reasonably foreseeable.

10.4 Conditions to avoid

Conditions to avoid : Protect from frost, heat and sunlight.

10.5 Incompatible materials

Materials to avoid : Strong oxidizing agents

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Harmful if swallowed.

Product:

Acute oral toxicity : Acute toxicity estimate: 1,325 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 20 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-omega.-hydroxy-, branched:

Acute oral toxicity : LD50 (Rat): > 300 - 2,000 mg/kg
Acute inhalation toxicity : Remarks: No data available
Acute dermal toxicity : LD50: > 5,000 mg/kg
Method: literature value

propan-2-ol:

Acute oral toxicity : LD50 (Rat): 5,840 mg/kg
Acute inhalation toxicity : LC50 (Rat): 39 mg/l

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Exposure time: 4 h
Test atmosphere: vapour
Acute dermal toxicity : LD50 (Rabbit): 13,900 mg/kg
Method: OECD Test Guideline 402

tetrasodium ethylene diamine tetraacetate:

Acute oral toxicity : LD50 (Rat): 1,780 - 2,000 mg/kg
Assessment: Harmful if swallowed.
Acute inhalation toxicity : LC50 (Rat): > 1 mg/l
Test atmosphere: dust/mist
Assessment: The component/mixture is moderately toxic after short term inhalation.
Acute dermal toxicity : Remarks: No data available

Cocosalkylpropylendiaminbiguanidiniumdiacetat:

Acute oral toxicity : LD50 (Rat): 500 - 2,000 mg/kg
Assessment: Harmful if swallowed.
Acute inhalation toxicity : Remarks: No data available
Acute dermal toxicity : Remarks: No data available

didecyldimethylammonium chloride:

Acute oral toxicity : LD50 (Rat): 238 mg/kg
Method: OECD Test Guideline 401
Assessment: Toxic if swallowed.
Acute inhalation toxicity : Remarks: No data available
Acute dermal toxicity : LD50 (Rabbit): 3,342 mg/kg

Amines, N-C12-14-alkyltrimethylenedi-:

Acute oral toxicity : LD50 (Rat, female): 200 mg/kg
Method: OECD Test Guideline 423
Acute inhalation toxicity : Remarks: No data available
Acute dermal toxicity : Remarks: No data available

piperazine; [solid]:

Acute oral toxicity : LD50 (Rat): 2,600 mg/kg
Method: calculated
Acute inhalation toxicity : Remarks: No data available
LC0 (Rat): 1.16 mg/l
Exposure time: 8 h
Test atmosphere: vapour

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Acute dermal toxicity : LD50 (Rabbit): 8,300 mg/kg
Method: OECD Test Guideline 402

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine:

Acute oral toxicity : LD50 Oral (Rat): 261 mg/kg
Method: OECD Test Guideline 401
Assessment: Toxic if swallowed.

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : LD50 (Rat): > 600 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

Orange, sweet, ext.:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

tributyl phosphate:

Acute oral toxicity : LD50 (Rat): 1,553 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 4,242 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Assessment: An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration., The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 3,100 mg/kg

trisodium nitrilotriacetate:

Acute oral toxicity : LD50 (Rat, female): 1,300 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rabbit, male and female): > 10,000 mg/kg

N-dodecylpropane-1,3-diamine:

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after single ingestion.

dodecylamine:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

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Method: OECD Test Guideline 401

Skin corrosion/irritation

Causes severe burns.

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched:

Species	: Rabbit
Method	: OECD Test Guideline 404
Result	: No skin irritation

propan-2-ol:

Result	: No skin irritation
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tetrasodium ethylene diamine tetraacetate:

Species	: Rabbit
Result	: No skin irritation

Cocosalkylpropylendiaminbiguanidiniumdiacetat:

Species	: Rabbit
Exposure time	: 4 h
Method	: OECD Test Guideline 404
Result	: Corrosive after 1 to 4 hours of exposure

didecyldimethylammonium chloride:

Species	: Rabbit
Exposure time	: 4 h
Method	: OECD Test Guideline 404
Result	: Corrosive after 3 minutes to 1 hour of exposure

Amines, N-C12-14-alkyltrimethylenedi-:

Species	: Rabbit
Method	: OECD Test Guideline 404
Result	: Corrosive after 3 minutes to 1 hour of exposure

piperazine; [solid]:

Species	: Rabbit
Method	: OECD Test Guideline 404
Result	: Corrosive after 3 minutes to 1 hour of exposure

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine:

Result	: Corrosive after 3 minutes to 1 hour of exposure
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Orange, sweet, ext.:

Result	: Skin irritation
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tributyl phosphate:

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Species	: Rabbit
Method	: OECD Test Guideline 404
Result	: Skin irritation

trisodium nitrilotriacetate:

Species	: Rabbit
Method	: Draize Test
Result	: No skin irritation

N-dodecylpropane-1,3-diamine:

Result	: Corrosive after 3 minutes or less of exposure
--------	---

dodecylamine:

Species	: Rabbit
Method	: OECD Test Guideline 404
Result	: Corrosive after 3 minutes to 1 hour of exposure

Serious eye damage/eye irritation

Causes serious eye damage.

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched:

Species	: Rabbit
Method	: Draize Test
Result	: Irreversible effects on the eye

propan-2-ol:

Result	: Eye irritation
--------	------------------

tetrasodium ethylene diamine tetraacetate:

Species	: Rabbit
Result	: Irreversible effects on the eye

Cocosalkylpropylendiaminbiguanidiniumdiacetat:

Species	: Rabbit
Method	: OECD Test Guideline 405
Result	: Irreversible effects on the eye

didecyldimethylammonium chloride:

Result	: Irreversible effects on the eye
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Amines, N-C12-14-alkyltrimethylenedi-:

Remarks	: Causes eye burns.
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piperazine; [solid]:

Species	: Rabbit
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||Result : Irreversible effects on the eye

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine:

||Result : Irreversible effects on the eye

Orange, sweet, ext.:

||Result : No eye irritation

tributyl phosphate:

||Species : Rabbit
||Method : OECD Test Guideline 405
||Result : No eye irritation

trisodium nitrilotriacetate:

||Species : Rabbit
||Method : OECD Test Guideline 405
||Result : Eye irritation

N-dodecylpropane-1,3-diamine:

||Result : Irreversible effects on the eye

dodecylamine:

||Result : Irreversible effects on the eye

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.

Respiratory sensitisation

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched:

||Test Type : Maximisation Test
||Species : Guinea pig
||Result : Did not cause sensitisation on laboratory animals.

propan-2-ol:

||Test Type : Buehler Test
||Species : Guinea pig
||Result : Did not cause sensitisation on laboratory animals.

tetrasodium ethylene diamine tetraacetate:

||Test Type : Maximisation Test
||Species : Guinea pig
||Method : OECD Test Guideline 406
||Result : Does not cause skin sensitisation.

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||Remarks : Based on data from similar materials

Cocosalkylpropylendiaminbiguanidiniumdiacetat:

||Remarks : No data available

didecyldimethylammonium chloride:

||Test Type : Buehler Test
||Species : Guinea pig
||Method : OECD Test Guideline 406
||Result : Did not cause sensitisation on laboratory animals.
||GLP : yes

Amines, N-C12-14-alkyltrimethylenedi-:

||Remarks : not applicable, corrosive substance. According Guideline
OECD 402 a non- corrosive concentration has to be tested

piperazine; [solid]:

||Test Type : Maximisation Test
||Species : Guinea pig
||Method : OECD Test Guideline 406
||Result : May cause sensitisation by inhalation and skin contact.

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine:

||Test Type : Buehler Test
||Species : Guinea pig
||Result : Did not cause sensitisation on laboratory animals.

Orange, sweet, ext.:

||Result : May cause sensitisation by skin contact.

tributyl phosphate:

||Species : Guinea pig
||Result : Did not cause sensitisation on laboratory animals.

trisodium nitrilotriacetate:

||Test Type : Buehler Test
||Species : Guinea pig
||Method : OECD Test Guideline 406
||Result : Did not cause sensitisation on laboratory animals.

N-dodecylpropane-1,3-diamine:

||Remarks : No data available

dodecylamine:

||Remarks : No data available

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Germ cell mutagenicity

Not classified based on available information.

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched:

Genotoxicity in vitro : Test Type: Microbial mutagenesis assay (Ames test)
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Result: negative

propan-2-ol:

Genotoxicity in vitro : Test Type: Ames test
Method: Mutagenicity (Escherichia coli - reverse mutation assay)
Result: Non mutagenic

Genotoxicity in vivo : Species: Mouse
Method: Mutagenicity (micronucleus test)
Result: Non mutagenic

Germ cell mutagenicity- Assessment : Not mutagenic in Ames Test

tetrasodium ethylene diamine tetraacetate:

Genotoxicity in vitro : Remarks: In vitro tests did not show mutagenic effects

Genotoxicity in vivo : Result: Did not show mutagenic effects in animal experiments.

Germ cell mutagenicity- Assessment : Animal testing did not show any mutagenic effects.

Cocosalkylpropylendiaminbiguanidiniumdiacetat:

Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium
Method: OECD Test Guideline 471
Result: Non mutagenic
GLP: yes

Germ cell mutagenicity- Assessment : Not mutagenic in Ames Test

didecyldimethylammonium chloride:

Genotoxicity in vitro : Test system: Salmonella typhimurium
Metabolic activation: Metabolic activation
Method: OECD Test Guideline 471
Result: Not mutagenic in Ames Test

Genotoxicity in vivo : Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)
Species: Rat
Application Route: Oral

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Method: OECD Test Guideline 475
Result: negative

Germ cell mutagenicity- Assessment : Animal testing did not show any mutagenic effects.

Amines, N-C12-14-alkyltrimethylenedi-:

Genotoxicity in vitro : Test Type: Microbial mutagenesis assay (Ames test)
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: Not mutagenic in Ames Test
GLP: yes

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse (male and female)
Application Route: Oral
Result: negative

Germ cell mutagenicity- Assessment : Not mutagenic in Ames Test

piperazine; [solid]:

Germ cell mutagenicity- Assessment : Animal testing did not show any mutagenic effects., Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine:

Genotoxicity in vitro : Test Type: reverse mutation assay
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Germ cell mutagenicity- Assessment : Not mutagenic in Ames Test

tributyl phosphate:

Genotoxicity in vitro : Test Type: Microbial mutagenesis assay (Ames test)
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: Not mutagenic in Ames Test

Genotoxicity in vivo : Species: Rat
Cell type: Bone marrow
Application Route: Oral
Result: In vivo tests did not show any chromosomal changes.

Germ cell mutagenicity- Assessment : Not mutagenic in Ames Test

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trisodium nitrilotriacetate:

Genotoxicity in vitro : Remarks: In vitro tests did not show mutagenic effects

Germ cell mutagenicity- Assessment : Animal testing did not show any mutagenic effects.

N-dodecylpropane-1,3-diamine:

Germ cell mutagenicity- Assessment : No data available

dodecylamine:

Germ cell mutagenicity- Assessment : No data available

Carcinogenicity

Not classified based on available information.

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-omega-hydroxy-, branched:

Remarks : This information is not available.

propan-2-ol:

Remarks : Based on available data, the classification criteria are not met.

tetrasodium ethylene diamine tetraacetate:

Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects.

Cocosalkylpropylendiaminbiguanidiniumdiacetat:

Carcinogenicity - Assessment : No data available

didecyldimethylammonium chloride:

Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects.

Amines, N-C12-14-alkyltrimethylenedi-:

Remarks : This information is not available.

Carcinogenicity - Assessment : No data available

piperazine; [solid]:

Carcinogenicity - Assessment : Based on available data, the classification criteria are not met.

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N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine:

Species	: Rat
Application Route	: Oral
Dose	: 4 - 8 - 20 mg/kg body weight
NOAEL	: 4 mg/kg bw/day
LOAEL	: 8 mg/kg body weight
Method	: OECD Test Guideline 453
GLP	: yes
Remarks	: Animal testing did not show any carcinogenic effects.

tributyl phosphate:

Species	: Rat, male
Exposure time	: 2 Years
NOAEL	: 8.9 mg/kg body weight

Carcinogenicity - Assessment	: Limited evidence of a carcinogenic effect.
------------------------------	--

trisodium nitrilotriacetate:

Species	: Rat, male and female
Application Route	: Oral
Exposure time	: 2 Years
NOAEL	: 9.2 mg/kg body weight
Result	: Limited evidence of carcinogenicity in animal studies (oral)

Carcinogenicity - Assessment	: Suspected of causing cancer.
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N-dodecylpropane-1,3-diamine:

Carcinogenicity - Assessment	: No data available
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dodecylamine:

Carcinogenicity - Assessment	: No data available
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Reproductive toxicity

Not classified based on available information.

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched:

Effects on fertility	: Remarks: Animal testing did not show any effects on fertility.
Effects on foetal development	: Remarks: No effects on fertility and early embryonic development were detected.

propan-2-ol:

Effects on foetal development	: Species: Rat Application Route: Oral
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General Toxicity Maternal: NOAEL: 400 mg/kg body weight

Reproductive toxicity - Assessment : Based on available data, the classification criteria are not met.

tetrasodium ethylene diamine tetraacetate:

Reproductive toxicity - Assessment : Animal testing did not show any effects on fertility.

Cocosalkylpropylendiaminbiguanidiniumdiacetat:

Effects on foetal development : Test Type: Fertility/early embryonic development
Species: Rat, female
Application Route: Oral
General Toxicity Maternal: NOAEL: 15 mg/kg body weight
Teratogenicity: NOAEL: 125 mg/kg body weight
Developmental Toxicity: NOAEL: 45 mg/kg body weight
Embryo-foetal toxicity: NOAEL: 45 mg/kg body weight
Method: OECD Test Guideline 414
GLP: yes

didecyldimethylammonium chloride:

Reproductive toxicity - Assessment : No data available

Amines, N-C12-14-alkyltrimethylenedi-:

Effects on foetal development : Test Type: Pre-natal
Species: Rat
Strain: wistar
Application Route: Oral
Dose: 1.25, 5.0, 20.0 milligram per kilogram
Teratogenicity: NOAEL: 20 mg/kg body weight

Reproductive toxicity - Assessment : According to experience not expected

piperazine; [solid]:

Reproductive toxicity - Assessment : Some evidence of adverse effects on sexual function and fertility, based on animal experiments.

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine:

Reproductive toxicity - Assessment : Did not show teratogenic effects in animal experiments.

tributyl phosphate:

Effects on foetal development : Species: Rat
Application Route: Oral
Duration of Single Treatment: 10 d
Teratogenicity: NOAEL: 750 mg/kg body weight
Embryo-foetal toxicity: NOAEL: 750 mg/kg body weight

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Result: No adverse effects
GLP: yes

trisodium nitrilotriacetate:

Effects on fertility : Species: Rat, male and female
Application Route: Oral
General Toxicity - Parent: LOAEL: 450 mg/kg body weight
Result: No effects on fertility and early embryonic development were detected.

Effects on foetal development : Species: Rabbit, female
Application Route: Oral
Duration of Single Treatment: 9 d
Teratogenicity: NOAEL: 250 mg/kg body weight
Result: No effects on fertility and early embryonic development were detected.

N-dodecylpropane-1,3-diamine:

Reproductive toxicity - Assessment : No data available

dodecylamine:

Reproductive toxicity - Assessment : No data available

STOT - single exposure

Not classified based on available information.

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-omega-hydroxy-, branched:

Remarks : No data available

propan-2-ol:

Assessment : May cause drowsiness or dizziness.

tetrasodium ethylene diamine tetraacetate:

Remarks : Based on available data, the classification criteria are not met.

Cocosalkylpropylendiaminbiguanidiniumdiacetat:

Remarks : No data available

didecyldimethylammonium chloride:

Remarks : No data available

Amines, N-C12-14-alkyltrimethylenedi-:

Remarks : not determined

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N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine:

||Remarks : No data available

trisodium nitrilotriacetate:

||Remarks : Based on available data, the classification criteria are not met.

N-dodecylpropane-1,3-diamine:

||Remarks : No data available

dodecylamine:

||Assessment : The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

STOT - repeated exposure

May cause damage to organs (Gastrointestinal tract, Immune system) through prolonged or repeated exposure if swallowed.

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched:

||Remarks : No data available

propan-2-ol:

||Remarks : Based on available data, the classification criteria are not met.

tetrasodium ethylene diamine tetraacetate:

||Exposure routes : Inhalation
||Assessment : May cause damage to organs through prolonged or repeated exposure.

Cocosalkylpropylendiaminbiguanidiniumdiacetat:

||Exposure routes : Ingestion
||Assessment : May cause damage to organs through prolonged or repeated exposure.

didecyldimethylammonium chloride:

||Remarks : No data available

Amines, N-C12-14-alkyltrimethylenedi-:

||Exposure routes : Ingestion
||Target Organs : Gastrointestinal tract, Immune system
||Assessment : Causes damage to organs through prolonged or repeated exposure.

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine:

||Target Organs : Kidney

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Assessment : May cause damage to organs through prolonged or repeated exposure.

trisodium nitrilotriacetate:

Exposure routes : Ingestion
Target Organs : Kidney
Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

N-dodecylpropane-1,3-diamine:

Remarks : No data available

dodecylamine:

Target Organs : Gastro-intestinal system, Liver, Immune system
Assessment : The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

Repeated dose toxicity

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched:

Species : Rat
NOAEL : 50 mg/kg
Application Route : Oral
Exposure time : 2 yr
Target Organs : Heart, Liver, Kidney

propan-2-ol:

Remarks : No data available

Cocosalkylpropylendiaminbiguanidiniumdiacetat:

Species : Rat, male and female
NOAEL : 30 mg/kg
Application Route : Oral
Exposure time : 14-days
Method : OECD Test Guideline 407
GLP : yes

didecyldimethylammonium chloride:

Remarks : No data available

Amines, N-C12-14-alkyltrimethylenedi-:

Species : Rat, male and female
NOAEL : 0.4 mg/l
Application Route : Ingestion
Exposure time : 90-day
Dose : 0.1, 0.4, 1.5, 6
Method : OECD Test Guideline 408

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|| Target Organs : Digestive organs

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine:

|| Species : Rat
|| NOAEL : 4 mg/kg
|| LOAEL : 8 mg/kg
|| Application Route : Oral
|| Dose : 4 - 8 - 20 mg/kg
|| Method : OECD Test Guideline 453
|| GLP : yes

|| Species : Rat
|| NOAEL : 9 mg/kg
|| Application Route : Oral
|| Exposure time : 90-day
|| Method : OECD Test Guideline 408

tributyl phosphate:

|| Species : Mouse, male and female
|| NOAEL : 75 mg/kg
|| Application Route : Oral
|| Exposure time : 90-day
|| Method : OECD Test Guideline 408
|| Remarks : Subchronic toxicity

trisodium nitrilotriacetate:

|| Species : Rat, male and female
|| NOAEL : 0.21 mg/l
|| Application Route : inhalation (dust/mist/fume)
|| Test atmosphere : dust/mist
|| Exposure time : 28-day 6 h
|| Number of exposures : 5 Tage/ Woche

|| Species : Rabbit, male and female
|| NOAEL : 50 mg/kg
|| Application Route : Skin contact
|| Exposure time : 90-day

|| Species : Rat, male and female
|| NOAEL : 92 mg/kg
|| Application Route : Oral

N-dodecylpropane-1,3-diamine:

|| Remarks : No data available

dodecylamine:

|| Remarks : No data available

Aspiration toxicity

Not classified based on available information.

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Components:

Orange, sweet, ext.:

|| The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

dodecylamine:

|| May be fatal if swallowed and enters airways.

Further information

Product:

Remarks : No data is available on the product itself.

SECTION 12: Ecological information

12.1 Toxicity

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-omega-hydroxy-, branched:

Toxicity to fish	: LC50 (Danio rerio (zebra fish)): 2.5 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 1.5 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	: ErC50 (Desmodesmus subspicatus (green algae)): 2.5 mg/l Exposure time: 72 h EC10 (Desmodesmus subspicatus (green algae)): 0.6 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to fish (Chronic toxicity)	: NOEC: 1.73 mg/l Method: QSAR
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC: 1.36 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: QSAR

propan-2-ol:

Toxicity to fish	: LC50 (Pimephales promelas (fathead minnow)): 9,640 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 10,000 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	: EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l Exposure time: 72 h

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Test Type: static test

EC50 (green algae): 1,800 mg/l
Exposure time: 7 d

tetrasodium ethylene diamine tetraacetate:

- | | | |
|--|---|--|
| Toxicity to fish | : | LC50 (Lepomis macrochirus (Bluegill sunfish)): > 100 mg/l
Exposure time: 96 h |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna): > 100 mg/l
Exposure time: 48 h
Method: DIN 38412 |
| Toxicity to algae/aquatic plants | : | EC50 (algae): > 100 mg/l
Exposure time: 72 h
Test Type: Growth inhibition |
| Toxicity to fish (Chronic toxicity) | : | NOEC: >= 36.9 mg/l
Exposure time: 35 d
Species: Brachidanio rerio
Method: OECD Test Guideline 210
Remarks: The toxicological data has been taken from products of similar composition. |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | NOEC: 25 mg/l
Exposure time: 21 d
Species: Daphnia (water flea)
Method: OECD Test Guideline 211
Remarks: The toxicological data has been taken from products of similar composition. |

Cocosalkylpropylendiaminbiguanidiniumdiacetat:

- | | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Danio rerio (zebra fish)): 0.707 mg/l
Exposure time: 96 h
Analytical monitoring: yes
Method: OECD Test Guideline 203
GLP: yes |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): 0.058 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
GLP: yes |
| Toxicity to algae/aquatic plants | : | ErC50 (Desmodesmus subspicatus (green algae)): 0.0197 mg/l
Exposure time: 72 h
Analytical monitoring: yes
Method: OECD Test Guideline 201
GLP: yes

NOEC (Desmodesmus subspicatus (green algae)): 0.00316 mg/l
Exposure time: 72 h |

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	Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: yes
M-Factor (Acute aquatic toxicity)	: 10
Toxicity to fish (Chronic toxicity)	: NOEC: 0.125 mg/l Exposure time: 9 d Species: Danio rerio (zebra fish) Method: OECD Test Guideline 212 GLP: yes
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC: 0.025 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211 GLP: yes
M-Factor (Chronic aquatic toxicity)	: 1

didecyldimethylammonium chloride:

Toxicity to fish	: LC50 (Pimephales promelas (fathead minnow)): 0.19 mg/l Exposure time: 96 h GLP: yes
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 0.062 mg/l Exposure time: 48 h GLP: yes
Toxicity to algae/aquatic plants	: ErC50 (Pseudokirchneriella subcapitata (green algae)): 0.026 mg/l Exposure time: 96 h Method: OECD Test Guideline 201 GLP: yes
M-Factor (Acute aquatic toxicity)	: 10
Toxicity to fish (Chronic toxicity)	: NOEC: 0.032 mg/l Exposure time: 34 d Species: Danio rerio (zebra fish) Method: OECD Test Guideline 210
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC: 0.014 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: Expert judgement and weight of evidence determination.
M-Factor (Chronic aquatic toxicity)	: 1

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Amines, N-C12-14-alkyltrimethylenedi-:

Toxicity to fish	: LC50 (Brachydanio rerio (zebrafish)): 0.148 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	: NOEC (Daphnia magna): 0.032 mg/l Test Type: Reproduction Test Method: OECD Test Guideline 211 Remarks: 21 -days
Toxicity to algae/aquatic plants	: EC50 (Pseudokirchneriella subcapitata (microalgae)): 0.0652 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201
M-Factor (Acute aquatic toxicity)	: 100
Toxicity to microorganisms	: EC50 : 68 mg/l Method: OECD 209
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC: 0.032 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211
M-Factor (Chronic aquatic toxicity)	: 1

piperazine; [solid]:

Toxicity to fish	: LC50 (Poecilia reticulata (guppy)): > 1,800 mg/l Exposure time: 96 h Method: literature value
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna): 21 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	: EC50 (Skeletonema costatum (marine diatom)): 944.2 mg/l Exposure time: 72 h NOEC (Selenastrum capricornutum (green algae)): > 1,000 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC: 12.5 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine:

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Toxicity to fish	: LC50 (Danio rerio (zebra fish)): 0.43 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 0.073 mg/l Exposure time: 48 h GLP: yes
Toxicity to algae/aquatic plants	: ErC10 (Desmodesmus subspicatus (green algae)): 0.012 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 NOEC (Selenastrum capricornutum (green algae)): > 0.001 - 0.01 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
M-Factor (Acute aquatic toxicity)	: 10
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC: 0.024 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211
M-Factor (Chronic aquatic toxicity)	: 1

Orange, sweet, ext.:

Toxicity to fish	: LC50 (Danio rerio (zebra fish)): 5.65 mg/l Exposure time: 96 h Method: Read-across (Analogy)
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 1.1 mg/l Exposure time: 48 h Method: Read-across (Analogy)
Toxicity to algae/aquatic plants	: ErC50 (Desmodesmus subspicatus (green algae)): 4.3 mg/l Exposure time: 72 h

tributyl phosphate:

Toxicity to fish	: LC50 (Oncorhynchus mykiss): 4.2 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 1.8 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	: EbC50 (Desmodesmus subspicatus (green algae)): 1.3 mg/l Exposure time: 72 h EC10 (Desmodesmus subspicatus (green algae)): 0.92 mg/l Exposure time: 72 h
Toxicity to fish (Chronic tox-	: NOEC: 0.82 mg/l

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icity) Exposure time: 95 d
Species: Oncorhynchus mykiss (rainbow trout)

Toxicity to daphnia and other : NOEC: 1.3 mg/l
aquatic invertebrates (Chronic toxicity) Exposure time: 21 d
Species: Daphnia magna (Water flea)

trisodium nitrilotriacetate:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l
Exposure time: 96 h
Test Type: flow-through test

Toxicity to daphnia and other : EC50 (Gammarus salinus (seawater shrimp)): 98 mg/l
aquatic invertebrates Exposure time: 96 h

Toxicity to algae/aquatic : EC50 (Desmodesmus subspicatus (green algae)): > 91.5 mg/l
plants Exposure time: 72 h
Test Type: static test

NOEC (Desmodesmus subspicatus (green algae)): 1.43 mg/l
Exposure time: 72 h

Toxicity to fish (Chronic toxicity) : LC50: 90.5 mg/l
Exposure time: 27 d
Species: Oncorhynchus mykiss (rainbow trout)

Toxicity to daphnia and other : NOEC: 9.3 mg/l
aquatic invertebrates (Chronic toxicity) Exposure time: 21 Weeks
Species: Gammarus fasciatus (freshwater shrimp)

N-dodecylpropane-1,3-diamine:

M-Factor (Acute aquatic toxicity) : 1

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

dodecylamine:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 0.84 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 0.323 mg/l
aquatic invertebrates Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic : EC50 (Desmodesmus subspicatus (green algae)): 0.08 mg/l
plants Exposure time: 72 h
Method: OECD Test Guideline 201

NOEC (Desmodesmus subspicatus (green algae)): 0.03 mg/l
Exposure time: 72 h

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Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 10

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.013 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211

12.2 Persistence and degradability

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-omega.-hydroxy-, branched:

Biodegradability : Test Type: aerobic
Inoculum: activated sludge
Result: Readily biodegradable.
Biodegradation: > 60 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

propan-2-ol:

Biodegradability : Result: Readily biodegradable.

tetrasodium ethylene diamine tetraacetate:

Biodegradability : Result: Not rapidly biodegradable
Remarks: According to OECD criteria, the product is inherently biodegradable.

Cocosalkylpropylendiaminbiguanidiniumdiacetat:

Biodegradability : Concentration: 5 mg/l
Result: Biodegradable
Biodegradation: 64 %
Exposure time: 28 d
Method: OECD 301B/ ISO 9439/ EEC 84/449 C5
GLP: no

didecyldimethylammonium chloride:

Biodegradability : Concentration: 10 mg/l
Result: Readily biodegradable.
Biodegradation: 72 %
Exposure time: 28 d
Method: OECD 301B/ ISO 9439/ EEC 84/449 C5
GLP: yes

Amines, N-C12-14-alkyltrimethylenedi-:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 66 %
Exposure time: 28 d

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Method: OECD Test Guideline 301D

piperazine; [solid]:

Biodegradability : Test Type: aerobic
Inoculum: activated sludge
Result: Readily biodegradable.
Biodegradation: 65 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine:

Biodegradability : Result: rapidly biodegradable
Biodegradation: 79 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

Orange, sweet, ext.:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 72 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

tributyl phosphate:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 77 %
Exposure time: 28 d
Method: OECD Test Guideline 301C

trisodium nitrilotriacetate:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 100 %
Exposure time: 28 d

N-dodecylpropane-1,3-diamine:

Biodegradability : Remarks: No data available

dodecylamine:

Biodegradability : Result: Readily biodegradable.

12.3 Bioaccumulative potential

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-omega.-hydroxy-, branched:

Biaccumulation : Remarks: None reasonably foreseeable.

Partition coefficient: n-octanol/water : Remarks: Not applicable

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propan-2-ol:

Bioaccumulation : Remarks: No bioaccumulation is to be expected (log Pow <= 4).
Partition coefficient: n-octanol/water : log Pow: 0.05 (20 °C)
Method: OECD Test Guideline 107

tetrasodium ethylene diamine tetraacetate:

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)
Exposure time: 28 d
Bioconcentration factor (BCF): 1.8
Remarks: Does not significantly accumulate in organisms.

Cocosalkylpropylendiaminbiguanidiniumdiacetat:

Bioaccumulation : Remarks: No data available

didecyldimethylammonium chloride:

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)
Exposure time: 46 d
Bioconcentration factor (BCF): 81

Amines, N-C12-14-alkyltrimethylenedi-:

Bioaccumulation : Bioconcentration factor (BCF): 3.2
Remarks: Bioaccumulation is unlikely.
Partition coefficient: n-octanol/water : log Pow: -0.6 (24.7 °C)

piperazine; [solid]:

Bioaccumulation : Remarks: Does not significantly accumulate in organisms.

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.
Partition coefficient: n-octanol/water : log Pow: -0.7

Orange, sweet, ext.:

Partition coefficient: n-octanol/water : log Pow: > 4

tributyl phosphate:

Bioaccumulation : Bioconcentration factor (BCF): 7 - 35
Remarks: Bioaccumulation is unlikely.
Partition coefficient: n-octanol/water : log Pow: 4

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trisodium nitrilotriacetate:

Bioaccumulation : Species: Brachidanio rerio
Exposure time: 96 d
Bioconcentration factor (BCF): < 3
Remarks: No bioaccumulation is to be expected (log Pow <= 4).
Does not significantly accumulate in organisms.

Partition coefficient: n-octanol/water : log Pow: -13.2

N-dodecylpropane-1,3-diamine:

Bioaccumulation : Remarks: No data available

dodecylamine:

Bioaccumulation : Remarks: No data available

12.4 Mobility in soil

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-omega.-hydroxy-, branched:

Mobility : Remarks: No data available

propan-2-ol:

Mobility : Remarks: Mobile in soils

tetrasodium ethylene diamine tetraacetate:

Mobility : Remarks: Substance does not evaporate from water surface into the atmosphere., Adsorption to solid soil phase is possible.

didecyldimethylammonium chloride:

Mobility : Remarks: Mobile in soils

Amines, N-C12-14-alkyltrimethylenedi-:

Mobility : Medium: Soil
Remarks: Mobile in soils

Distribution among environmental compartments : Medium: Soil
Koc: 10400
Method: OECD Test Guideline 106

piperazine; [solid]:

Mobility : Remarks: Substance does not evaporate from water surface into the atmosphere., Not expected to adsorb on soil.

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine:

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|| Mobility : Remarks: After release, adsorbs onto soil.

tributyl phosphate:

|| Mobility : Remarks: No data available

trisodium nitrilotriacetate:

|| Mobility : Remarks: Substance does not evaporate from water surface into the atmosphere., Not expected to adsorb on soil.

N-dodecylpropane-1,3-diamine:

|| Mobility : Remarks: No data available

dodecylamine:

|| Mobility : Remarks: No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Product:

Endocrine disrupting potential : 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.

Additional ecological information : There is no data available for this product.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of the product according to the defined EWC (European Waste Code) No.

Disposal together with normal waste is not allowed. Special disposal required according to local regulations.

Contaminated packaging : Take empty packaging to the recycling plant.

Empty containers should be taken to an approved waste handling site for recycling or disposal.

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Waste key for the unused product : European waste catalog (EWC) 070601*
Waste key for the unused product(Group) : Waste material of HZVA from fats, lubricants, soaps, detergents, disinfectants and personal protection products.

SECTION 14: Transport information

14.1 UN number

ADR : UN 1903
IMDG : UN 1903
IATA : UN 1903

14.2 UN proper shipping name

ADR : DISINFECTANT, LIQUID, CORROSIVE, N.O.S.
(N-dodecylpropane-1,3-diamine, didecyldimethylammonium chloride)
IMDG : DISINFECTANT, LIQUID, CORROSIVE, N.O.S.
(N-dodecylpropane-1,3-diamine, didecyldimethylammonium chloride)
IATA : Disinfectant, liquid, corrosive, n.o.s.
(N-dodecylpropane-1,3-diamine, didecyldimethylammonium chloride)

14.3 Transport hazard class(es)

ADR : 8
IMDG : 8
IATA : 8

14.4 Packing group

ADR
Packing group : III
Classification Code : C9
Hazard Identification Number : 80
Labels : 8
Tunnel restriction code : (E)
IMDG
Packing group : III
Labels : 8
EmS Code : F-A, S-B
IATA (Cargo)
Packing instruction (cargo aircraft) : 856
Packing instruction (LQ) : Y841
Packing group : III
Labels : Corrosive

IATA (Passenger)

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Packing instruction (passenger aircraft) : 852
Packing instruction (LQ) : Y841
Packing group : III
Labels : Corrosive

14.5 Environmental hazards

ADR

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

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

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Relevant EU provisions transposed through retained EU law

UK REACH List of restrictions (Annex 17)	: Conditions of restriction for the following entries should be considered: Number on list 3
UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation	: Not applicable
The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain)	: Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	: Not applicable
UK REACH List of substances subject to authorisation (Annex XIV)	: Not applicable
Volatile organic compounds	: Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Volatile organic compounds (VOC) content: 9.07 %
according to Detergents Regulation EC 648/2004	: 15 % or over but less than 30 %: Non-ionic surfactants less than 5 %: EDTA and salts thereof, NTA (nitrilotriacetic acid) and salts thereof Other constituents: Disinfectants, Perfumes Allergens: Orange, sweet, ext. Citronellol

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geraniol
benzyl salicylate

The components of this product are reported in the following inventories:

TCSI	: Not in compliance with the inventory
TSCA	: Product contains substance(s) not listed on TSCA inventory.
AIIC	: Not in compliance with the inventory
DSL	: This product contains the following components that are not on the Canadian DSL nor NDSL. Cocosalkylpropylendiaminbiguanidiniumdiacetat Amines, N-C12-14-alkyltrimethylenedi-
ENCS	: Not in compliance with the inventory
ISHL	: Not in compliance with the inventory
KECI	: Not in compliance with the inventory
PICCS	: Not in compliance with the inventory
IECSC	: Not in compliance with the inventory
NZIoC	: Not in compliance with the inventory
TECI	: Not in compliance with the inventory

15.2 Chemical safety assessment

Exempt

SECTION 16: Other information

Full text of H-Statements

H225	: Highly flammable liquid and vapour.
H226	: Flammable liquid and vapour.
H228	: Flammable solid.
H301	: Toxic if swallowed.
H302	: Harmful if swallowed.
H304	: May be fatal if swallowed and enters airways.
H314	: Causes severe skin burns and eye damage.
H315	: Causes skin irritation.
H317	: May cause an allergic skin reaction.
H318	: Causes serious eye damage.
H319	: Causes serious eye irritation.
H332	: Harmful if inhaled.
H334	: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	: May cause respiratory irritation.
H336	: May cause drowsiness or dizziness.
H351	: Suspected of causing cancer.

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H361fd	: Suspected of damaging fertility. Suspected of damaging the unborn child.
H372	: Causes damage to organs through prolonged or repeated exposure if swallowed.
H373	: May cause damage to organs through prolonged or repeated exposure if swallowed.
H373	: May cause damage to organs through prolonged or repeated exposure if inhaled.
H373	: May cause damage to organs through prolonged or repeated exposure.
H400	: Very toxic to aquatic life.
H410	: Very toxic to aquatic life with long lasting effects.
H411	: Toxic to aquatic life with long lasting effects.
H412	: Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	: Acute toxicity
Aquatic Acute	: Short-term (acute) aquatic hazard
Aquatic Chronic	: Long-term (chronic) aquatic hazard
Asp. Tox.	: Aspiration hazard
Carc.	: Carcinogenicity
Eye Dam.	: Serious eye damage
Eye Irrit.	: Eye irritation
Flam. Liq.	: Flammable liquids
Flam. Sol.	: Flammable solids
Repr.	: Reproductive toxicity
Resp. Sens.	: Respiratory sensitisation
Skin Corr.	: Skin corrosion
Skin Irrit.	: Skin irritation
Skin Sens.	: Skin sensitisation
STOT RE	: Specific target organ toxicity - repeated exposure
STOT SE	: Specific target organ toxicity - single exposure
2000/39/EC	: Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values
GB EH40	: UK. EH40 WEL - Workplace Exposure Limits
2000/39/EC / TWA	: Limit Value - eight hours
2000/39/EC / STEL	: Short term exposure limit
GB EH40 / TWA	: Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL	: Short-term exposure limit (15-minute reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL

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- Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification of the mixture:

Acute Tox. 4	H302
Skin Corr. 1B	H314
Eye Dam. 1	H318
Resp. Sens. 1	H334
Skin Sens. 1	H317
STOT RE 2	H373
Aquatic Acute 1	H400
Aquatic Chronic 2	H411

Classification procedure:

Calculation method
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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