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

1.1 Product identifier

Trade name : terralin® protect

Unique Formula Identifier : Q02

(UFI)

Q020-T0PQ-S007-1E7K

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

Use of the Sub-

Recommended restrictions

stance/Mixture

Disinfectants and general biocidal products

Starioc/iviixtare

on use

For professional users only.

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

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

1.4 Emergency telephone number

Emergency telephone num-

ber

Carechem 24 International:+44 1235 239670

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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

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.

Short-term (acute) aquatic hazard, Cate-

gory 1

H400: Very toxic to aquatic life.

Long-term (chronic) aquatic hazard, Cat-

egory 2

H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Hazard pictograms







Signal word : Danger

Hazard statements : H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements :

Prevention:

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye protec-

tion/ face protection.

Response:

P301 + P310 + P330 IF SWALLOWED: Immediately call a

POISON CENTER/ doctor. Rinse mouth.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or show-

er.

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.

Disposal:



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

Hazardous components which must be listed on the label:

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides 2-phenoxyethanol

Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched Betaines, C12-14-alkyldimethyl

Additional Labelling

The product is classified in accordance with Annex I (2.6.4.5) to Regulation (EC) 1272/2008.

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.

Hazardous components

Chemical name	CAS-No. EC-No.	Classification	Concentration (% w/w)
	Index-No.		, ,
	Registration number		
Quaternary ammonium compounds,	68424-85-1	Acute Tox. 4; H302	>= 20 - < 25
benzyl-C12-16-alkyldimethyl, chlo-	270-325-2	Acute Tox. 4; H312	
rides	01-2119965180-41-	Skin Corr. 1B; H314	
	XXXX	Eye Dam. 1; H318	
		Aquatic Acute 1;	
		Aquatic Chronic 1;	
		H410	
		M-Factor (Acute	
		aquatic toxicity): 10	
		M-Factor (Chronic	
		aquatic toxicity): 1	
2-phenoxyethanol	122-99-6	Acute Tox. 4; H302	>= 10 - < 20
	204-589-7	Eye Irrit. 2; H319	
	603-098-00-9	STOT SE 3; H335	
		(Respiratory sys- tem)	
Poly(oxy-1,2-ethanediyl), .alpha	69011-36-5	Acute Tox. 4; H302	>= 3 - < 10
tridecylomegahydroxy-, branched	500-241-6	Eye Dam. 1; H318	
		Aquatic Chronic 3;	
		H412	
		specific concentra-	



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		tion limit Eye Dam. 1; H318 > 10 % Eye Irrit. 2; H319 > 1 - < 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
Betaines, C12-14-alkyldimethyl	66455-29-6 266-368-1 01-2119529251-48- XXXX	Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Chronic 3; H412	>= 1 - < 2.5
1,1',1",1"'- ethylenedinitrilotetrapropan-2-ol	102-60-3 203-041-4 01-2119552434-41- XXXX	Eye Irrit. 2; H319	>= 1 - < 10
Glycine, aminoalkyl derivs.	941-419-7 01-2120050368-56- XXXX	Acute Tox. 4; H302 Acute Tox. 3; H311 Skin Corr. 1C; H314 Eye Dam. 1; H318 STOT RE 2; H373 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute	>= 0.25 - < 1
		aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 1	

For explanation of abbreviations see section 16.

Other information

CAS 68424-85-1 CORRESPONDS TO

REACH: EC 939-253-5

BPR: EC 269-919-4/ CAS 68391-01-5

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Take off immediately all contaminated clothing and wash it

before reuse.

If inhaled : Move to fresh air.

If symptoms persist, call a physician.

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> In case of skin contact Wash off immediately with plenty of water for at least 15

> > minutes.

Consult a physician.

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.

Obtain medical attention.

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

Symptoms : Treat symptomatically.

Risks Harmful if swallowed.

Causes serious eye damage.

Causes severe burns.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment For specialist advice physicians should contact the Poisons

Information Service.

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

Do not allow run-off from fire fighting to enter drains or water

courses.

ucts

Hazardous combustion prod- : No hazardous combustion products are known

5.3 Advice for firefighters

for firefighters

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

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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.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.

Avoid subsoil penetration.

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).

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 : Avoid exceeding the given occupational exposure limits (see

section 8).

Wear personal protective equipment.

Avoid formation of aerosol. Ensure adequate ventilation.

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 stor-

age conditions

Keep away from heat. Keep away from direct sunlight. Keep container tightly closed. Recommended storage temperature:

5 - 25°C

Advice on common storage : Do not store together with explosives, oxidizing agents, organ-

ic peroxides and infectious products.

7.3 Specific end use(s)

Specific use(s) : none

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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/m3	GB EH40
		STEL	500 ppm 1,250 mg/m3	GB EH40

Derived No Effect Level (DNEL):

Substance name	End Use	Exposure routes	Potential health effects	Value
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	Workers	Skin contact	Long-term systemic effects	5.7 mg/kg
	Workers	Inhalation	Long-term systemic effects	3.96 mg/m3
Poly(oxy-1,2- ethanediyl), .alpha tridecylomega hydroxy-, branched	Workers	Inhalation	Long-term systemic effects	294 mg/m3
propan-2-ol	Workers	Skin contact	Long-term systemic effects	888 mg/kg
	Workers	Inhalation	Long-term systemic effects	500 mg/m3
1,1',1",1"'- ethylenedini- trilotetrapropan-2-ol	Workers	Skin contact	Long-term systemic effects	4.2 mg/kg
	Workers	Inhalation	Long-term systemic effects	29.4 mg/m3
Glycine, aminoalkyl derivs.	Workers	Inhalation	Long-term systemic effects	0.19 mg/m3
	Workers	Dermal	Long-term systemic effects	100 mg/kg bw/day

Predicted No Effect Concentration (PNEC):

Substance name	Environmental Compartment	Value
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	Fresh water	0.0009 mg/l
	Marine water	0.00009 mg/l
	Fresh water sediment	12.27 mg/kg
	Marine sediment	13.09 mg/kg
	Soil	7 mg/kg
	Effects on waste water treatment plants	0.4 mg/l
	Intermittent use/release	0.00016 mg/l
Poly(oxy-1,2-ethanediyl), .alphatridecylomegahydroxy-,	Fresh water	0.074 mg/l



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branched		
	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
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
	Oral	160 mg/kg food
1,1',1",1"'- ethylenedinitrilotetrapropan-2-ol	Fresh water	0.085 mg/l
, ,	Marine water	0.0085 mg/l
	Intermittent use/release	1.51 mg/l
	Sewage treatment plant	70 mg/l
	Fresh water sediment	0.193 mg/kg
	Marine sediment	0.0193 mg/kg
	Soil	0.0183 mg/kg
Glycine, aminoalkyl derivs.	Fresh water	0.00023 mg/l
	Marine water	0.000023 mg/l
	Sewage treatment plant	0.22 mg/l
	Fresh water sediment	2.69 mg/kg dry weight (d.w.)
	Marine sediment	0.269 mg/kg dry weight (d.w.)
	Soil	5.7 mg/kg dry weight (d.w.)

8.2 Exposure controls

Engineering measures

Ensure that eyewash stations and safety showers are close to the workstation location.

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 specifica-

tions 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 protec-

tion.



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Skin and body protection : Work uniform or laboratory coat.

Respiratory protection : Not required; except in case of aerosol formation.

Respiratory protection complying with EN 141.

Recommended Filter type:

Α

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 : green

Odour : pleasant

Odour Threshold : not determined

pH : 8.6 (20 °C)

Concentration: 100 %

Melting point/freezing point : < -5 °C

Decomposition temperature Not applicable

Boiling point/boiling range : ca. 90 °C

Flash point : 48 °C

Method: DIN 51755 Part 1

Evaporation rate : No data available

Upper explosion limit / Upper

flammability limit

Not applicable

Lower explosion limit / Lower

flammability limit

Not applicable

Vapour pressure : No data available

Relative vapour density : No data available

Density : ca. 1.01 g/cm3 (20 °C)

Solubility(ies)

Water solubility : completely soluble (20 °C)

Partition coefficient: n-

octanol/water

: Not applicable



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Auto-ignition temperature : Not applicable

Viscosity

Viscosity, dynamic : ca. 21 mPa*s (20 °C)

Method: ISO 3219

Viscosity, kinematic : not determined

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 Aluminium and Mild steel

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 : Extremes of temperature and direct sunlight.

10.5 Incompatible materials

Materials to avoid : Incompatible with strong acids and oxidizing agents.

10.6 Hazardous decomposition products

None reasonably foreseeable.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Harmful if swallowed.

Product:

Acute oral toxicity : Acute toxicity estimate: 1,405 mg/kg

Method: Calculation method

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Acute dermal toxicity : Acute toxicity estimate: > 2,000 mg/kg

Method: Calculation method

Components:

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:

Acute oral toxicity : LD50 (Rat): > 300 - 2,000 mg/kg

Method: OECD Test Guideline 401 Assessment: Harmful if swallowed.

Acute inhalation toxicity : LC50 (Rat): > 2 mg/l

Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat): 1,100 mg/kg

Assessment: Harmful in contact with skin.

2-phenoxyethanol:

Acute oral toxicity : LD50 (Rat): 1,394 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : (Rat): Exposure time: 8 h

Test atmosphere: Aerosol

Remarks: An LC50/ inhalation could not be determined because no mortality of rats was observed at the maximum

achievable concentration.

Acute dermal toxicity : LD50 (Rat): 14,391 mg/kg

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

Exposure time: 4 h
Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rabbit): 13,900 mg/kg

Method: OECD Test Guideline 402

Betaines, C12-14-alkyldimethyl:

Acute oral toxicity : LD50 (Mouse): 2,640 mg/kg

Acute inhalation toxicity : Remarks: No data available



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

1,1',1"',1"'-ethylenedinitrilotetrapropan-2-ol:

Acute oral toxicity : LD50 (Rat): 2,890 mg/kg

Method: OECD Test Guideline 401

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

Method: OECD Test Guideline 402

Glycine, aminoalkyl derivs.:

Acute oral toxicity : LD50 (Rat, male and female): > 660 mg/kg

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : LD50 (Rat): > 400 mg/kg

Skin corrosion/irritation

Causes severe burns.

Product:

Remarks : Causes severe skin burns and eye damage.

Components:

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:

Species : Rabbit

Result : Corrosive after 3 minutes to 1 hour of exposure

GLP : no

2-phenoxyethanol:

Species : Rabbit

Method : OECD Test Guideline 404

Result : No skin irritation

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

Betaines, C12-14-alkyldimethyl:

Method : OECD Test Guideline 404

Result : Corrosive after 3 minutes to 1 hour of exposure

1,1',1"',1"'-ethylenedinitrilotetrapropan-2-ol:

Species : Rabbit

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Method : OECD Test Guideline 404

Result : No skin irritation

Glycine, aminoalkyl derivs.:

Species : Rabbit

Method : OECD Test Guideline 404

Result : Corrosive after 1 to 4 hours of exposure

Serious eye damage/eye irritation

Causes serious eye damage.

Product:

Remarks : Causes serious eye damage.

Components:

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:

Result : Irreversible effects on the eye

2-phenoxyethanol:

Result : Eye irritation

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

Betaines, C12-14-alkyldimethyl:

Species : Rabbit

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

1,1',1"',1"'-ethylenedinitrilotetrapropan-2-ol:

Species : Rabbit

Method : OECD Test Guideline 405

Result : Eye irritation

Glycine, aminoalkyl derivs.:

Species : Rabbit

Result : Irreversible effects on the eye

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.



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Respiratory sensitisation

Not classified based on available information.

Components:

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:

Test Type : Buehler Test Species : Guinea pig

Method : OECD Test Guideline 406

Result : Did not cause sensitisation on laboratory animals.

GLP : yes

2-phenoxyethanol:

Test Type : Maximisation Test

Species : Guinea pig

Method : OECD Test Guideline 406

Result : Did not cause sensitisation on laboratory animals.

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.

Betaines, C12-14-alkyldimethyl:

Test Type : Maximisation Test Species : Guinea pig

Method : OECD Test Guideline 406
Result : Not a skin sensitizer.

1,1',1"',1"'-ethylenedinitrilotetrapropan-2-ol:

Test Type : Maximisation Test

Species : Guinea pig

Method : OECD Test Guideline 406

Result : Did not cause sensitisation on laboratory animals.

Glycine, aminoalkyl derivs.:

Test Type : Maximisation Test

Species : Guinea pig

Method : OECD Test Guideline 406
Result : Not a skin sensitizer.

Germ cell mutagenicity

Not classified based on available information.

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Components:

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:

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

Genotoxicity in vivo : Test Type: In vivo micronucleus test

Species: Mouse (male and female)

Application Route: Oral

Method: OECD Test Guideline 474

GLP: yes

Germ cell mutagenicity- As-

sessment

Tests on bacterial or mammalian cell cultures did not show

mutagenic effects.

2-phenoxyethanol:

Genotoxicity in vitro : Test Type: Microbial mutagenesis assay (Ames test)

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Result: negative

Germ cell mutagenicity- As-

sessment

Tests on bacterial or mammalian cell cultures did not show

mutagenic effects.

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- As-

sessment

Not mutagenic in Ames Test

Betaines, C12-14-alkyldimethyl:

Genotoxicity in vitro : Test Type: Microbial mutagenesis assay (Ames test)

Method: OECD Test Guideline 471

Result: negative

Test Type: gene mutation test

Z11816 ZSDB_P_GB EN

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Method: OECD Test Guideline 476

Result: negative

1,1',1"',1"'-ethylenedinitrilotetrapropan-2-ol:

Genotoxicity in vitro : Result: Not mutagenic in Ames Test

Glycine, aminoalkyl derivs.:

Genotoxicity in vitro : Test Type: Microbial mutagenesis assay (Ames test)

Method: OECD Test Guideline 471

Result: negative

Test Type: Chromosome aberration test in vitro

Method: OECD Test Guideline 473

Result: negative

Genotoxicity in vivo : Remarks: No data available

Germ cell mutagenicity- As-

sessment

: No data available

Carcinogenicity

Not classified based on available information.

Components:

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:

Carcinogenicity - Assess-

: Animal testing did not show any carcinogenic effects.

ment

2-phenoxyethanol:

Remarks : This information is not available.

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.

1,1',1"',1"'-ethylenedinitrilotetrapropan-2-ol:

Remarks : This information is not available.

Glycine, aminoalkyl derivs.:

Carcinogenicity - Assess- : No data available

ment

Reproductive toxicity

Not classified based on available information.

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



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Components:

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:

Effects on fertility : Test Type: Two-generation study

Species: Rat, male and female

Application Route: Oral

General Toxicity - Parent: NOAEL: 51 - 102 mg/kg body

weight

General Toxicity F1: NOAEL: 41 - 83 mg/kg body weight

Fertility: NOAEL: 139 - 198 mg/kg body weight

Method: OECD Test Guideline 416

Result: Animal testing did not show any effects on fertility.

GLP: yes

Effects on foetal develop-

ment

Species: Rat

Application Route: Oral

General Toxicity Maternal: NOAEL: 8.1 mg/kg body weight Developmental Toxicity: NOAEL: 81 mg/kg body weight

Method: OECD Test Guideline 414

GLP: yes

Remarks: Animal testing did not show any effects on foetal

development.

2-phenoxyethanol:

Effects on foetal develop-

ment

Test Type: Pre-natal

Species: Rat

Application Route: Oral

General Toxicity Maternal: NOAEL: 300 mg/kg bw/day

Method: OPPTS 870.3700

Reproductive toxicity - As-

sessment

: Animal testing did not show any effects on fertility.

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 develop-

ment

Remarks: No effects on fertility and early embryonic develop-

ment were detected.

propan-2-ol:

Effects on foetal develop-

ment

Species: Rat

Application Route: Oral

General Toxicity Maternal: NOAEL: 400 mg/kg body weight

Reproductive toxicity - As-

sessment

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

1,1',1"',1"'-ethylenedinitrilotetrapropan-2-ol:

Glycine, aminoalkyl derivs.:

Reproductive toxicity - As-

: No data available

sessment

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II

STOT - single exposure

Not classified based on available information.

Components:

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:

Remarks : No data available

2-phenoxyethanol:

Assessment : The substance or mixture is classified as specific target organ

toxicant, single exposure, category 3 with respiratory tract

irritation.

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

Remarks : No data available

propan-2-ol:

Assessment : May cause drowsiness or dizziness.

1,1',1"',1"'-ethylenedinitrilotetrapropan-2-ol:

Remarks : No data available

STOT - repeated exposure

Not classified based on available information.

Components:

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:

Remarks : No data available

2-phenoxyethanol:

Remarks : No data available

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.

1,1',1"',1"'-ethylenedinitrilotetrapropan-2-ol:

Remarks : No data available

Glycine, aminoalkyl derivs.:

Assessment : The substance or mixture is classified as specific target organ

toxicant, repeated exposure, category 2.



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Repeated dose toxicity

Components:

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:

Species : Rat, male
NOAEL : 31 mg/kg
Application Route : Oral
Exposure time : 90-day

Method : OECD Test Guideline 408

GLP : yes

Species : Rat

NOAEL : 214 mg/kg

Application Route : Oral

Exposure time : 14-days

Method : OECD Test Guideline 407

2-phenoxyethanol:

Species : Rat, male and female

NOAEL : 369 mg/kg Application Route : Oral

Method : OECD Test Guideline 408

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

Betaines, C12-14-alkyldimethyl:

Species : Rat NOAEL : 50 mg/kg

Glycine, aminoalkyl derivs.:

Species: MouseNOAEL: 2 mg/kgApplication Route: OralExposure time: 78 Weeks

Aspiration toxicity

Not classified based on available information.

Further information

Product:

Remarks : No data is available on the product itself.



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SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0.18 mg/l

Exposure time: 48 h Analytical monitoring: yes

Method: OECD Test Guideline 202

GLP: yes

Components:

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.85 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other:

aquatic invertebrates

EC50 (Daphnia magna): 0.015 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

IC50: 0.03 mg/l

Exposure time: 72 h

M-Factor (Acute aquatic tox- :

icity)

10

Toxicity to fish (Chronic tox-

icity)

NOEC: 0.032 mg/l

Exposure time: 34 d

Species: Pimephales promelas (fathead minnow)

Toxicity to daphnia and other :

aquatic invertebrates (Chron-

ic toxicity)

NOEC: 0.0042 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

M-Factor (Chronic aquatic

toxicity)

: 1

2-phenoxyethanol:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 337 - 352

mg/l

Exposure time: 96 h

Toxicity to daphnia and other:

aquatic invertebrates

EC50 (Daphnia magna): > 500 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

EC50 (green algae): > 500 mg/l

Exposure time: 72 h Method: DIN 38412



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> EC10 (Pseudomonas putida): > 100 mg/l Toxicity to microorganisms

Exposure time: 17 h Method: DIN 38 412 Part 8

Toxicity to fish (Chronic tox-

icity)

NOEC: 23 mg/l

Exposure time: 34 d

Species: Pimephales promelas (fathead minnow)

Toxicity to daphnia and other : NOEC: 9.43 mg/l aquatic invertebrates (Chron-

ic toxicity)

Exposure time: 21 d

Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211

Plant toxicity Remarks: No data available

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

aquatic invertebrates

Toxicity to daphnia and other : 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 tox-

icity)

NOEC: 1.73 mg/l

Method: QSAR

Toxicity to daphnia and other: aquatic invertebrates (Chron-

ic 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

Test Type: static test

EC50 (green algae): 1,800 mg/l

Exposure time: 7 d

Betaines, C12-14-alkyldimethyl:



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> LC50 (Danio rerio (zebra fish)): 4.4 mg/l Toxicity to fish

> > Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other:

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 7.76 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

NOEC (Pseudokirchneriella subcapitata (green algae)): 0.38

ma/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

NOEC: 2.99 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211

1,1',1",1"'-ethylenedinitrilotetrapropan-2-ol:

LC50 (Leuciscus idus (Golden orfe)): > 100 mg/l Toxicity to fish

> Exposure time: 96 h Method: DIN 38412

Toxicity to daphnia and other:

aguatic invertebrates

EC50 (Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 48 h

Method: Tested according to Directive 92/69/EEC.

Toxicity to algae/aquatic

plants

EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l

Exposure time: 72 h

Remarks: Based on data from similar materials

Toxicity to daphnia and other: aquatic invertebrates (Chron-

ic toxicity)

NOEC: > 1 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211

Glycine, aminoalkyl derivs.:

Toxicity to fish LC50 (Oncorhynchus mykiss (rainbow trout)): 0.207 µg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other:

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0.0333 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

NOEC (Pseudokirchneriella subcapitata (green algae)):

0.00955 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

M-Factor (Acute aquatic tox- : 10

icity)



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Toxicity to fish (Chronic tox-

NOEC: >= 0.0523 mg/lExposure time: 28 d

Species: Oncorhynchus mykiss (rainbow trout)

Method: OECD Test Guideline 215

Toxicity to daphnia and other: 0.0024 mg/l

aquatic invertebrates (Chron-

ic toxicity)

Exposure time: 21 d

Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211

M-Factor (Chronic aquatic : 1

toxicity)

icity)

12.2 Persistence and degradability

Product:

Biodegradability Result: Readily biodegradable.

Method: OECD 301D / EEC 84/449 C6

Components:

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:

Concentration: 5 mg/l Biodegradability

> Result: Readily biodegradable. Biodegradation: 95.5 % Exposure time: 28 d

Method: OECD Test Guideline 301B

2-phenoxyethanol:

Biodegradability Inoculum: activated sludge

Result: Readily biodegradable. Biodegradation: > 70 %

Exposure time: 15 d

Method: OECD Test Guideline 301A

Remarks: According to the results of tests of biodegradability this product is considered as being readily biodegradable.

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:

Result: Readily biodegradable. Biodegradability

Betaines, C12-14-alkyldimethyl:

Biodegradability Result: Readily biodegradable.

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1,1',1"',1"'-ethylenedinitrilotetrapropan-2-ol:

Biodegradability : Test Type: aerobic

Result: Not readily biodegradable.

Biodegradation: 9 % Exposure time: 28 d

Method: OECD Test Guideline 301F

12.3 Bioaccumulative potential

Components:

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:

Bioaccumulation : Exposure time: 35 d

Concentration: 0.076 mg/l

Bioconcentration factor (BCF): 79

GLP: yes

Remarks: Does not bioaccumulate.

Partition coefficient: n-

octanol/water

log Pow: 2.75 (20 °C)

2-phenoxyethanol:

Bioaccumulation : Remarks: Due to the distribution coefficient n-octanol/water,

accumulation in organisms is not expected.

No bioaccumulation is to be expected (log Pow <= 4).

Partition coefficient: n-

octanol/water

log Pow: 1.2 (23 °C)

pH: 7

Method: OECD Test Guideline 107

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

Bioaccumulation : Remarks: None reasonably foreseeable.

Partition coefficient: n-

octanol/water

Remarks: Not applicable

propan-2-ol:

Bioaccumulation : Remarks: No bioaccumulation is to be expected (log Pow <=

4).

Partition coefficient: n- : log Pow: 0.05 (20 °C)

octanol/water Method: OECD Test Guideline 107

1,1',1"',1"'-ethylenedinitrilotetrapropan-2-ol:

Bioaccumulation : Remarks: No data available

Glycine, aminoalkyl derivs.:

Bioaccumulation : Remarks: No data available

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12.4 Mobility in soil

Components:

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:

Mobility : Remarks: No data available

2-phenoxyethanol:

Mobility : Remarks: Substance does not evaporate from water surface

into the atmosphere.

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

Mobility : Remarks: No data available

propan-2-ol:

Mobility : Remarks: Mobile in soils

1,1',1"',1"'-ethylenedinitrilotetrapropan-2-ol:

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.

Components:

2-phenoxyethanol:

Assessment : This substance is not considered to be persistent, bioaccumu-

lating and toxic (PBT).. This substance is not considered to be

very persistent and very bioaccumulating (vPvB).

12.6 Other adverse effects

Product:

Endocrine disrupting poten-

tial

The substance/mixture does not contain components consid-

ered 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 infor-

mation

No data is available on the product itself.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Disposal together with normal waste is not allowed. Special

disposal required according to local regulations.

Contaminated packaging : Empty containers should be taken to an approved waste han-

dling site for recycling or disposal.

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.

(Alkyl(C12-16)dimethylbenzylammoniumchloride)

IMDG : DISINFECTANT, LIQUID, CORROSIVE, N.O.S.

(Alkyl(C12-16)dimethylbenzylammoniumchloride)

IATA : Disinfectant, liquid, corrosive, n.o.s.

(Alkyl(C12-16)dimethylbenzylammoniumchloride)

14.3 Transport hazard class(es)

Class Subsidiary risks

 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)

Packing instruction (LQ) : Y841
Packing group : III

856



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Labels : Corrosive

IATA (Passenger)

Packing instruction (passen- : 852

ger aircraft)

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

Remarks : Not classified as supporting combustion according to the

transport regulations.

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 fol-

lowing 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 Brit-

ain)

Not applicable

Regulation (EC) No 1005/2009 on substances that de-

plete 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: 5.45 %

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> according to Detergents 15 - < 30%: Cationic surfactants Regulation EC 648/2004 5 - < 15%: Non-ionic surfactants

Other constituents: Perfumes

Other regulations:

Take note of The Management of Health and Safety at Work Regulations 1999 (requirements relating to protection of young people at work contained in Regulation 19) and of Directive 94/33/EC on the protection of young people at work.

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.

Betaines, C12-14-alkyldimethyl Glycine, aminoalkyl derivs.

reaction mass of cis-and trans-cyclohexadec-8-en-1-one

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

SECTION 16: Other informationFull text of H-Statements

H225	:	Highly flammable liquid and vapour.
H302	:	Harmful if swallowed.
H311	:	Toxic in contact with skin.
H312	:	Harmful in contact with skin.
H314	:	Causes severe skin burns and eye damage.
H318	:	Causes serious eye damage.
H319	:	Causes serious eye irritation.
H335	:	May cause respiratory irritation.
H336	:	May cause drowsiness or dizziness.
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. Harmful to aquatic life with long lasting effects. H412

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Full text of other abbreviations

Acute Tox. : Acute toxicity

Aquatic Acute : Short-term (acute) aquatic hazard Aquatic Chronic : Long-term (chronic) aquatic hazard

Eye Dam. : Serious eye damage

Eye Irrit. : Eye irritation
Flam. Liq. : Flammable liquids
Skin Corr. : Skin corrosion

STOT RE : Specific target organ toxicity - repeated exposure STOT SE : Specific target organ toxicity - single exposure GB EH40 : UK. EH40 WEL - Workplace Exposure Limits

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 - 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: Classification procedure:

Acute Tox. 4 H302 Calculation method
Skin Corr. 1B H314 Calculation method
Eye Dam. 1 H318 Calculation method



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Aquatic Acute 1 H400 Based on product data or assessment

Aquatic Chronic 2 H411 Calculation method

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

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.