

SAFETY DATA SHEET

according to the Globally Harmonized System

schülke 

terralin® protect *No Change Service!*

Version
06.00

Revision Date:
19.04.2023

Date of last issue: -

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : terralin® protect

Manufacturer or supplier's details

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

Importer : Schulke India Pvt. Ltd.
Delphi, A-Wing, Office No. 603, Orchard Avenue,
Hiranandani Business Park

Powai, Mumbai-400 076 Maharashtra
India
Telephone: +91 22 6173 6600
Telefax: +91 22 6173 6650
india.office@schuelke.com

Emergency telephone number : +91 22 6173 6600
Emergency telephone number : Carechem 24 International: 000 800 100 7479 (toll free)
+44 1865 407333 (only English)

Recommended use of the chemical and restrictions on use

Recommended use : Disinfectants

Restrictions on use : For professional users only.

2. HAZARDS IDENTIFICATION

Manufacture, Storage and Import of Hazardous Chemicals Rules 1989

Classification

Highly flammable liquids

GHS Classification

Acute toxicity (Oral) : Category 4

Acute toxicity (Dermal) : Category 5

Skin corrosion/irritation : Sub-category 1B

Serious eye damage/eye irritation : Category 1

Short-term (acute) aquatic : Category 1

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hazard

Long-term (chronic) aquatic hazard : Category 2

Long-term (chronic) aquatic hazard : Category 2

GHS label elements

Hazard pictograms



Signal word : Danger

Hazard statements : H302 Harmful if swallowed.
H313 May be harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention:

P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ 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 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.

Disposal:

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

Other hazards which do not result in classification

No hazards to be specially mentioned.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

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

Components

Chemical name	CAS-No.	Concentration (% w/w)
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Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	>= 20 - < 25
2-phenoxyethanol	122-99-6	>= 10 - < 20
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	>= 3 - < 10
propan-2-ol	67-63-0	>= 1 - < 10
Betaines, C12-14-alkyldimethyl	66455-29-6	>= 1 - < 2.5
1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol	102-60-3	>= 1 - < 10
Glycine, aminoalkyl derivs.	Not Assigned	>= 0.25 - < 1

4. 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.
- 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 immediately 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.
- Most important symptoms and effects, both acute and delayed : Treat symptomatically.
- Notes to physician : For specialist advice physicians should contact the Poisons Information Service.

5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Dry powder
Foam
Carbon dioxide (CO₂)
Water spray jet
- Unsuitable extinguishing media : Do NOT use water jet.
- Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : No hazardous combustion products are known
- Special protective equipment : In the event of fire, wear self-contained breathing apparatus.

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for firefighters

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Increased risk of slipping in the presence of leaked / spilled product.

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

Methods and materials for containment and 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).

7. HANDLING AND STORAGE

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

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.

Conditions for safe storage : Store at room temperature in the original container.

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

Materials to avoid : Do not store together with explosives, oxidizing agents, organic peroxides and infectious products.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
propan-2-ol	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
propan-2-ol	67-63-0	Acetone	Urine	End of shift at end of	40 mg/l	ACGIH BEI

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				work-week		
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Engineering measures : Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Respiratory protection : Not required; except in case of aerosol formation.
Respiratory protection complying with EN 141.
Recommended Filter type:
A

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.

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

Skin and body protection : Work uniform or laboratory coat.

Protective measures : Avoid contact with skin and eyes.

Hygiene measures : Keep away from food and drink.

9. 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

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Boiling point/boiling range	:	ca. 90 °C
Flash point	:	48 °C
		Method: DIN 51755 Part 1
Evaporation rate	:	No data available
Flammability (liquids)	:	Does not sustain combustion.
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/cm ³ (20 °C)
Solubility(ies)		
Water solubility	:	completely soluble (20 °C)
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	Not applicable
Viscosity		
Viscosity, dynamic	:	ca. 21 mPa*s (20 °C)
		Method: ISO 3219
Explosive properties	:	No data available
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Metal corrosion rate	:	< 6.25 mm/a
		Not corrosive to metals Aluminium and Mild steel

10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	The product is chemically stable.
Possibility of hazardous reactions	:	None reasonably foreseeable.
Conditions to avoid	:	Extremes of temperature and direct sunlight.
Incompatible materials	:	Incompatible with strong acids and oxidizing agents.

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Hazardous decomposition products : None reasonably foreseeable.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

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): 1,850 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 (Rabbit): > 5,000 mg/kg
Remarks: Based on available data, the classification criteria are not met.

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:

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

Species : Rabbit
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

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

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Respiratory or skin sensitisation

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
Assessment : Did not cause sensitisation on laboratory animals.
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

Components:

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

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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 - Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

2-phenoxyethanol:

Germ cell mutagenicity - Assessment : 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 - Assessment : 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
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.:

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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 - Assessment : No data available

Carcinogenicity

Components:

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

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

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 - Assessment : No data available

Reproductive toxicity

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

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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 development : 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:

Reproductive toxicity - Assessment : 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 development : Remarks: No effects on fertility and early embryonic development were detected.

propan-2-ol:

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

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

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

Glycine, aminoalkyl derivs.:

Reproductive toxicity - Assessment : No data available

STOT - single exposure

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.

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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

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.

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

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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 : Mouse
NOAEL : 2 mg/kg
Application Route : Oral
Exposure time : 78 Weeks

Further information

Product:

Remarks : No data is available on the product itself.

12. ECOLOGICAL INFORMATION

Ecotoxicity

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

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M-Factor (Acute aquatic toxicity) : 10

Toxicity to fish (Chronic toxicity) : NOEC: 0.032 mg/l
Exposure time: 34 d
Species: Pimephales promelas (fathead minnow)

Toxicity to daphnia and other aquatic invertebrates (Chronic 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)): > 100 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna): > 100 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (green algae): > 100 mg/l
Exposure time: 72 h
Method: DIN 38412

Toxicity to microorganisms : EC10 (Pseudomonas putida): > 100 mg/l
Exposure time: 17 h
Method: DIN 38 412 Part 8

Toxicity to fish (Chronic toxicity) : NOEC: 23 mg/l
Exposure time: 34 d
Species: Pimephales promelas (fathead minnow)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 9.43 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)

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

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

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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
Test Type: static test

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

Betaines, C12-14-alkyldimethyl:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 4.4 mg/l
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 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chronic 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:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): > 100 mg/l
Exposure time: 96 h
Method: DIN 38412

Toxicity to daphnia and other aquatic 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

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Toxicity to daphnia and other aquatic invertebrates (Chronic 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 toxicity) : 10

Toxicity to fish (Chronic toxicity) : NOEC: >= 0.0523 mg/l
Exposure time: 28 d
Species: Oncorhynchus mykiss (rainbow trout)
Method: OECD Test Guideline 215

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : 0.0024 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211

M-Factor (Chronic aquatic toxicity) : 1

Persistence and degradability

Product:

Biodegradability : Result: Readily biodegradable.
Method: OECD 301D / EEC 84/449 C6

Components:

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

Biodegradability : Concentration: 5 mg/l
Result: Readily biodegradable.
Biodegradation: 95.5 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

2-phenoxyethanol:

Biodegradability : Inoculum: activated sludge
Result: Readily biodegradable.

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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 : 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.

Betaines, C12-14-alkyldimethyl:

Biodegradability : Result: Readily biodegradable.

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

Biodegradability : aerobic
Result: Not readily biodegradable.
Biodegradation: 9 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

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:

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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-octanol/water : log Pow: 0.05 (20 °C)
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

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

Other adverse effects

Product:

Additional ecological information : No data is available on the product itself.

Components:

2-phenoxyethanol:

Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

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This substance is not considered to be very persistent and very bioaccumulating (vPvB).

13. DISPOSAL CONSIDERATIONS

Disposal methods

- Waste from residues : 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 handling site for recycling or disposal.

14. TRANSPORT INFORMATION

International Regulations

UNRTDG

- UN number : UN 1903
- Proper shipping name : DISINFECTANT, LIQUID, CORROSIVE, N.O.S.
(Alkyl(C12-16)dimethylbenzylammoniumchloride)
- Class : 8
- Packing group : III
- Labels : 8

IATA-DGR

- UN/ID No. : UN 1903
- Proper shipping name : Disinfectant, liquid, corrosive, n.o.s.
(Alkyl(C12-16)dimethylbenzylammoniumchloride)
- Class : 8
- Packing group : III
- Labels : Corrosive
- Packing instruction (cargo aircraft) : 856
- Packing instruction (passenger aircraft) : 852

IMDG-Code

- UN number : UN 1903
- Proper shipping name : DISINFECTANT, LIQUID, CORROSIVE, N.O.S.
(Alkyl(C12-16)dimethylbenzylammoniumchloride)
- Class : 8
- Packing group : III
- Labels : 8
- EmS Code : F-A, S-B
- Marine pollutant : yes

Transport in bulk according to IMO instruments

Not applicable for product as supplied.

Special precautions for user

- Remarks : Not classified as supporting combustion according to the transport regulations.

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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.

15. REGULATORY INFORMATION

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

This information is not available.

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.
AIIIC	:	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

16. OTHER INFORMATION

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

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI	:	ACGIH - Biological Exposure Indices (BEI)
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit

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AllC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); 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; ERG - Emergency Response Guide; 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; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; 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; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; 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; WHMIS - Workplace Hazardous Materials Information System

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.