

## APESIN RAPID PLUS

WM 0716035

Order number: 0716035

Version 5.2

Revision Date 21.01.2026

Print Date 11.03.2026

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

#### 1.1 Product identifier

Trade name : APESIN RAPID PLUS  
UFI : 9984-90A7-U00J-EFD7

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

Use of the Substance/Mixture : Cleaning agent  
Restricted to professional users.

#### 1.3 Details of the supplier of the safety data sheet

Company : Tana Chemie GmbH  
Rheinallee 96  
55120 Mainz  
Telephone : +49613196403  
Telefax : +4961319642526  
E-mail address : Produktsicherheit@werner-mertz.com  
Responsible/issuing person  
Contact person : Product development / product safety

#### 1.4 Emergency telephone

EU: 112

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Corrosive to Metals, Category 1	H290: May be corrosive to metals.
Skin corrosion, Category 1	H314: Causes severe skin burns and eye damage.
Serious eye damage, Category 1	H318: Causes serious eye damage.
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

##### Labeling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



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Signal Word	:	Danger	
Hazard Statements	:	H290 H314 H410	May be corrosive to metals. Causes severe skin burns and eye damage. Very toxic to aquatic life with long lasting effects.
Precautionary Statements	:	P102 <b>Prevention:</b> P273 P280 <b>Response:</b> P303 + P361 + P353 P305 + P351 + P338 + P310  P391 <b>Disposal:</b> P501	Keep out of reach of children.  Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection.  IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. 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. Collect spillage.  Dispose of container into the collection of recyclables only when it is completely empty.

Hazardous ingredients which must be listed on the label:

didecyldimethylammonium  
chloride  
Alkyl (C12-16) dimethylbenzyl  
ammonium chloride  
2-aminoethanol  
alkyl polyglycol ether  
carboxylic acid

Safety data sheet available on request.

### Classification in use concentration

Hazard Statements : H412 Harmful to aquatic life with long lasting effects.

### 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.

Ecological information: 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.

Toxicological information: 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.

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

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### SECTION 3: Composition/information on ingredients

#### 3.2 Mixtures

##### Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
didecyldimethylammonium chloride	7173-51-5 230-525-2 612-131-00-6	Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 2; H411 Acute Tox. 4; H302  M-Factor (Acute aquatic toxicity): 10  Acute toxicity estimate  Acute oral toxicity: 329 mg/kg	>= 3 - < 5
Alkyl (C12-16) dimethylbenzyl ammonium chloride	68424-85-1 270-325-2	Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 Acute Tox. 4; H302  M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 1  Acute toxicity estimate  Acute dermal toxicity: > 5.000 mg/kg	>= 3 - < 5
2-aminoethanol	141-43-5 205-483-3 603-030-00-8 01-2119486455-28	Acute Tox. 4; H332 Acute Tox. 4; H312 Acute Tox. 4; H302 Skin Corr. 1B; H314 STOT SE 3; H335 Aquatic Chronic 3; H412 Eye Dam. 1; H318  specific concentration limit STOT SE 3; H335 >= 5 %  Acute toxicity estimate  Acute oral toxicity: 500,0 mg/kg Acute inhalation toxicity:	>= 3 - < 5

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended



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		11 mg/l	
		Acute dermal toxicity: 1.100 mg/kg	
propan-2-ol	67-63-0 200-661-7 603-117-00-0 01-2119457558-25	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 (Central nervous system)	>= 1 - < 3
alkyl polyglycol ether carboxylic acid	53563-70-5	Eye Dam. 1; H318 Skin Irrit. 2; H315  specific concentration limit Skin Irrit. 2; H315 >= 20 % Eye Dam. 1; H318 >= 20 %	>= 1 - < 3
didecyldimethylammonium chloride	7173-51-5 230-525-2 612-131-00-6	Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 2; H411 Acute Tox. 4; H302  M-Factor (Acute aquatic toxicity): 10  Acute toxicity estimate  Acute oral toxicity: 329 mg/kg	>= 5 - < 10
Alkyl (C12-16) dimethylbenzyl ammonium chloride	68424-85-1 270-325-2	Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 Acute Tox. 4; H302  M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 1  Acute toxicity estimate  Acute dermal toxicity: > 5.000 mg/kg	>= 5 - < 10
2-aminoethanol	141-43-5 205-483-3 603-030-00-8 01-2119486455-28	Acute Tox. 4; H332 Acute Tox. 4; H312 Acute Tox. 4; H302 Skin Corr. 1B; H314 STOT SE 3; H335 Aquatic Chronic 3; H412 Eye Dam. 1; H318  specific concentration	>= 3 - < 5

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		limit STOT SE 3; H335 >= 5 % <hr/> Acute toxicity estimate Acute oral toxicity: 500,0 mg/kg Acute inhalation toxicity: 11 mg/l Acute dermal toxicity: 1.100 mg/kg	
propan-2-ol	67-63-0 200-661-7 603-117-00-0 01-2119457558-25	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 (Central nervous system)	>= 1 - < 3
alkyl polyglycol ether carboxylic acid	53563-70-5	Eye Dam. 1; H318 Skin Irrit. 2; H315 <hr/> specific concentration limit Skin Irrit. 2; H315 >= 20 % Eye Dam. 1; H318 >= 20 %	>= 1 - < 3
sodium carbonate	497-19-8 207-838-8 011-005-00-2 01-2119485498-19	Eye Irrit. 2; H319	>= 1 - < 3

### SECTION 4: First aid measures

#### 4.1 Description of first-aid measures

- General advice : Move out of dangerous area.  
Consult a physician.  
Show this material safety data sheet to the doctor in attendance.
- If inhaled : Move to fresh air.  
If symptoms persist, call a physician.
- In case of skin contact : Take off contaminated clothing and shoes immediately.  
Wash off with soap and plenty of water.  
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
- In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.  
Protect unharmed eye.  
Continue rinsing eyes during transport to hospital.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.  
Do NOT induce vomiting.  
Do not give milk or alcoholic beverages.

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Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.  
Take victim immediately to hospital.

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

Symptoms : corrosive effects  
Risks : No information available.

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

Treatment : For specialist advice physicians should contact the Poisons Information Service.

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### 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.  
Hazardous combustion products : No hazardous combustion products are known

### 5.3 Advice for firefighters

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.  
Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.  
Ensure adequate ventilation.  
Evacuate personnel to safe areas.

### 6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.

### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Neutralize with acid.  
Soak up with inert absorbent material (e.g. sand, silica gel, acid

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binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For personal protection see section 8., Treat recovered material as described in the section "Disposal considerations"., Refer to section 15 for specific national regulation.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

- Advice on safe handling : Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
To avoid spills during handling keep bottle on a metal tray.  
Dispose of rinse water in accordance with local and national regulations.
- Advice on protection against fire and explosion : Normal measures for preventive fire protection.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke.  
Wash hands before breaks and at the end of workday.

### 7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : Store in original container. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store at room temperature in the original container.
- Further information on storage stability : No decomposition if stored and applied as directed.  
Protect from frost.

### 7.3 Specific end use(s)

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
2-aminoethanol	Not Assigned	TWA	1 ppm 2,5 mg/m3	2006/15/EC
	Further information: Indicative, Identifies the possibility of significant uptake through the skin			
		STEL	3 ppm 7,6 mg/m3	2006/15/EC

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	Further information: Indicative, Identifies the possibility of significant uptake through the skin
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**Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:**

Substance name	End Use	Routes of exposure	Potential health effects	Value	
Alanine, N,N-bis(carboxymethyl)-, trisodium salt	Workers	Inhalation	Acute systemic effects	40 mg/m <sup>3</sup>	
	Workers	Inhalation	Acute local effects	40 mg/m <sup>3</sup>	
	Workers	Inhalation	Long-term systemic effects	40 mg/m <sup>3</sup>	
	Workers	Inhalation	Long-term local effects	4 mg/m <sup>3</sup>	
	Consumers	Inhalation	Acute local effects	20 mg/m <sup>3</sup>	
	Consumers	Inhalation	Acute systemic effects	20 mg/m <sup>3</sup>	
	Consumers	Inhalation	Long-term systemic effects	20 mg/m <sup>3</sup>	
	Consumers	Inhalation	Long-term local effects	2 mg/m <sup>3</sup>	
	Consumers	Ingestion	Acute systemic effects	85 mg/kg	
	Consumers	Ingestion	Long-term systemic effects	17 mg/kg	
	2-aminoethanol	Workers	Skin contact	Long-term systemic effects	1 mg/kg
		Workers	Inhalation	Long-term local effects	3,3 mg/m <sup>3</sup>
Consumers		Skin contact	Long-term systemic effects	0,24 mg/kg	
Consumers		Ingestion	Long-term systemic effects	3,75 mg/kg	
Consumers		Inhalation	Long-term local effects	2 mg/m <sup>3</sup>	
Consumers		Oral	Long-term systemic effects	1,5 mg/kg bw/day	
Workers		Skin contact	Long-term systemic effects	3 mg/kg bw/day	
Consumers		Skin contact	Long-term systemic effects	1,5 mg/kg bw/day	

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	Workers	Inhalation	Long-term systemic effects	1 mg/m3
	Workers	Inhalation	Long-term local effects	0,51 mg/m3
	Consumers	Inhalation	Long-term systemic effects	0,18 mg/m3
	Consumers	Inhalation	Long-term local effects	0,28 mg/m3
propan-2-ol	Workers	Skin contact	Long-term systemic effects	888 mg/kg
	Workers	Inhalation	Long-term systemic effects	500 mg/m3
	Consumers	Skin contact	Long-term systemic effects	319 mg/kg
	Consumers	Ingestion	Long-term systemic effects	26 mg/kg
	Consumers	Inhalation	Long-term systemic effects	89 mg/m3
sodium carbonate	Workers	Inhalation	Long-term local effects	10 mg/m3
	Consumers	Inhalation	Acute local effects	5 mg/m3

### Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
Alanine, N,N-bis(carboxymethyl)-, trisodium salt	Fresh water	2 mg/l
	Sea water	0,2 mg/l
	Fresh water sediment	24 mg/kg
	Soil	2,5 mg/kg
	STP	100 mg/l
	intermittent release	1 mg/l
2-aminoethanol	Fresh water	0,07 mg/l
	Sea water	0,007 mg/l
	STP	100 mg/l
	intermittent release	0,028 mg/l
	Fresh water sediment	0,357 mg/kg

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	Sea sediment	0,0357 mg/kg
	Soil	1,29 mg/kg
propan-2-ol	Fresh water	140,9 mg/l
	Sea water	140,9 mg/l
	Fresh water sediment	552 mg/kg
	Sea sediment	552 mg/kg
	Soil	28 mg/kg
	intermittent release	140,9 mg/l
	STP	2251 mg/l
	Oral	160 mg/kg

**8.2 Exposure controls**

**Personal protective equipment**

Eye/face protection : Tightly fitting safety goggles

Hand protection

Material : Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374.

Remarks : Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Remove and wash contaminated clothing before re-use.

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

Recommended Filter type:

ABEK-P3-filter

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### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

Physical state	: liquid
Color	: colorless, clear
Odor	: characteristic
Melting point/freezing point	: No data available
Boiling point/boiling range	: No data available
Flammability (solid, gas)	: No data available
Flammability (liquids)	: No data available
Lower explosion limit	: No data available
Upper explosion limit	: No data available
Flash point	: does not flash
Ignition temperature	: No data available
Decomposition temperature	: No data available
pH	: ca. 12, 100 % at 20 °C
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Water solubility	: No data available
Solubility in other solvents	: No data available
Partition coefficient: n- octanol/water	: No data available
Vapor pressure	: No data available
Density	: ca. 1,037 g/cm <sup>3</sup> at 20 °C
Relative density	: No data available
Relative vapor density	: No data available
Particle characteristics	: No data available

#### 9.2 Other information

none

### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

Stable under recommended storage conditions.  
No dangerous reaction known under conditions of normal use.

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### 10.2 Chemical stability

No decomposition if stored and applied as directed.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under recommended storage conditions.  
No decomposition if used as directed.

### 10.4 Conditions to avoid

Conditions to avoid : Protect from frost.

### 10.5 Incompatible materials

Materials to avoid : No data available

### 10.6 Hazardous decomposition products

No hazardous decomposition products are known.

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Our company is strongly against animal testing.

Our company does not place any orders for animal testing for the finished product or the ingredients. However, as a result of EU legislation (REACH Regulation), the manufacturers of ingredients or EU importers are obliged to test ingredients with regard to their effects on human health and the environment before they are brought onto the market. Some of the tests made necessary by this took place decades ago.

#### Acute toxicity

##### Product:

Acute oral toxicity : Acute toxicity estimate: > 2.000 mg/kg  
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 5 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 5.000 mg/kg  
Method: Calculation method

##### Components:

#### didecyldimethylammonium chloride

##### 7173-51-5:

Acute oral toxicity : LD50 (Rat): 238 mg/kg  
Method: OECD Test Guideline 401  
GLP: yes

Acute toxicity estimate: 329 mg/kg  
Method: Converted acute toxicity point estimate

Acute dermal toxicity : LD50 (Rabbit): 3.342 mg/kg

#### Alkyl (C12-16) dimethylbenzyl ammonium chloride

##### 68424-85-1:

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Acute oral toxicity : LD50 Oral (Rat): 795 mg/kg  
Method: OECD Test Guideline 401

Acute dermal toxicity : Acute toxicity estimate: > 5.000 mg/kg  
Method: Calculation method

### 2-aminoethanol

#### 141-43-5:

Acute oral toxicity : LD50 Oral (Rat): 1.515 mg/kg  
Method: OECD Test Guideline 401  
  
Acute toxicity estimate: 500,0 mg/kg  
Method: Converted acute toxicity point estimate

LD50 (Rat): 1.089 mg/kg  
Method: OECD Test Guideline 401

LD50 (Rat): 1.750 - 2.050 mg/kg

Acute inhalation toxicity : LC50 (Rat): 1,3 mg/l  
Exposure time: 6 h  
Remarks: Harmful by inhalation.

LC50 (Rat): 1,487 mg/l  
Exposure time: 4 h

Acute toxicity estimate: 11 mg/l

LC50 (Rat): 1,3 mg/l  
Exposure time: 4 h

Acute dermal toxicity : LD50 Dermal (Rabbit): 2.504 mg/kg  
Method: OECD Test Guideline 402  
  
Acute toxicity estimate: 1.100 mg/kg  
Method: Converted acute toxicity point estimate

LD50 (Rabbit): 1.000 mg/kg

### propan-2-ol

#### 67-63-0:

Acute oral toxicity : LD50 Oral (Rat): 5.840 mg/kg  
Method: OECD Test Guideline 401

LD50 Oral (Rat): 4.570 mg/kg

LD50 Oral (Rat): 5.045 mg/kg

Acute inhalation toxicity : LC50 (Rat, female): 47,5 mg/l  
Exposure time: 8 h  
Method: OECD Test Guideline 403

LC50 (Rat): 72,6 mg/l  
Exposure time: 4 h

LC50 (Mouse): 27,2 mg/l  
Exposure time: 4 h

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LC50 (Rat): 25 mg/l  
Exposure time: 6 h  
Method: OECD Test Guideline 403

LC50 (Rat): 30 mg/l  
Exposure time: 4 h

LC50 (Rat): 10000 ppm  
Exposure time: 6 h

Acute dermal toxicity : LD50 (Rabbit): 12.800 mg/kg  
Method: OECD Test Guideline 402

LD50 Dermal (Rabbit): 12.870 mg/kg  
Method: OECD Test Guideline 402

LD50 Dermal (Rabbit): 13.900 mg/kg  
Method: OECD Test Guideline 402

LD50 Dermal (Rabbit): 13.400 mg/kg

### didecyldimethylammonium chloride

#### 7173-51-5:

Acute oral toxicity : LD50 (Rat): 238 mg/kg  
Method: OECD Test Guideline 401  
GLP: yes

Acute toxicity estimate: 329 mg/kg  
Method: Converted acute toxicity point estimate

Acute dermal toxicity : LD50 (Rabbit): 3.342 mg/kg

### Alkyl (C12-16) dimethylbenzyl ammonium chloride

#### 68424-85-1:

Acute oral toxicity : LD50 Oral (Rat): 795 mg/kg  
Method: OECD Test Guideline 401

Acute dermal toxicity : Acute toxicity estimate: > 5.000 mg/kg  
Method: Calculation method

### 2-aminoethanol

#### 141-43-5:

Acute oral toxicity : LD50 Oral (Rat): 1.515 mg/kg  
Method: OECD Test Guideline 401

Acute toxicity estimate: 500,0 mg/kg  
Method: Converted acute toxicity point estimate

LD50 (Rat): 1.089 mg/kg  
Method: OECD Test Guideline 401

LD50 (Rat): 1.750 - 2.050 mg/kg

Acute inhalation toxicity : LC50 (Rat): 1,3 mg/l  
Exposure time: 6 h  
Remarks: Harmful by inhalation.

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- LC50 (Rat): 1,487 mg/l  
Exposure time: 4 h
- Acute toxicity estimate: 11 mg/l
- LC50 (Rat): 1,3 mg/l  
Exposure time: 4 h
- Acute dermal toxicity : LD50 Dermal (Rabbit): 2.504 mg/kg  
Method: OECD Test Guideline 402
- Acute toxicity estimate: 1.100 mg/kg  
Method: Converted acute toxicity point estimate
- LD50 (Rabbit): 1.000 mg/kg
- propan-2-ol**  
**67-63-0:**
- Acute oral toxicity : LD50 Oral (Rat): 5.840 mg/kg  
Method: OECD Test Guideline 401
- LD50 Oral (Rat): 4.570 mg/kg
- LD50 Oral (Rat): 5.045 mg/kg
- Acute inhalation toxicity : LC50 (Rat, female): 47,5 mg/l  
Exposure time: 8 h  
Method: OECD Test Guideline 403
- LC50 (Rat): 72,6 mg/l  
Exposure time: 4 h
- LC50 (Mouse): 27,2 mg/l  
Exposure time: 4 h
- LC50 (Rat): 25 mg/l  
Exposure time: 6 h  
Method: OECD Test Guideline 403
- LC50 (Rat): 30 mg/l  
Exposure time: 4 h
- LC50 (Rat): 10000 ppm  
Exposure time: 6 h
- Acute dermal toxicity : LD50 (Rabbit): 12.800 mg/kg  
Method: OECD Test Guideline 402
- LD50 Dermal (Rabbit): 12.870 mg/kg  
Method: OECD Test Guideline 402
- LD50 Dermal (Rabbit): 13.900 mg/kg  
Method: OECD Test Guideline 402
- LD50 Dermal (Rabbit): 13.400 mg/kg

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### sodium carbonate

#### 497-19-8:

- Acute oral toxicity : LD50 (Rat): 2.800 mg/kg  
LD50 Oral (Rat): 4.090 mg/kg
- Acute inhalation toxicity : LC50 (Rat): 2.300 mg/m3  
Exposure time: 2 h  
Method: OECD Test Guideline 403  
LC50 (Mouse): 1,2 mg/l  
Exposure time: 2 h
- Acute dermal toxicity : LD50 Dermal (Rabbit): > 2.000 mg/kg  
LD50 Dermal (Rat): > 2.000 mg/kg

### Skin corrosion/irritation

#### Product:

- Remarks : Extremely corrosive and destructive to tissue.

#### Components:

##### didecyldimethylammonium chloride

#### 7173-51-5:

- Species : Rabbit  
Exposure time : 3 min  
Method : OECD Test Guideline 404  
Result : irritating  
GLP : yes

##### Alkyl (C12-16) dimethylbenzyl ammonium chloride

#### 68424-85-1:

- Species : Rabbit  
Method : OECD Test Guideline 404  
Result : Corrosive after 3 minutes or less of exposure

### 2-aminoethanol

#### 141-43-5:

- Species : Rabbit  
Assessment : Corrosive  
Method : OECD Test Guideline 404  
Result : Corrosive

### propan-2-ol

#### 67-63-0:

- Species : Rabbit  
Result : No skin irritation

##### didecyldimethylammonium chloride

#### 7173-51-5:

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Species : Rabbit  
Exposure time : 3 min  
Method : OECD Test Guideline 404  
Result : irritating  
GLP : yes

### Alkyl (C12-16) dimethylbenzyl ammonium chloride

#### 68424-85-1:

Species : Rabbit  
Method : OECD Test Guideline 404  
Result : Corrosive after 3 minutes or less of exposure

### 2-aminoethanol

#### 141-43-5:

Species : Rabbit  
Assessment : Corrosive  
Method : OECD Test Guideline 404  
Result : Corrosive

### propan-2-ol

#### 67-63-0:

Species : Rabbit  
Result : No skin irritation

### sodium carbonate

#### 497-19-8:

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

### Serious eye damage/eye irritation

#### Product:

Remarks : May cause irreversible eye damage.

#### Components:

### 2-aminoethanol

#### 141-43-5:

Species : Rabbit  
Assessment : Risk of serious damage to eyes.  
Method : OECD Test Guideline 405  
Result : Risk of serious damage to eyes.

### propan-2-ol

#### 67-63-0:

Species : Rabbit  
Result : irritating

### 2-aminoethanol

#### 141-43-5:

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Species : Rabbit  
Assessment : Risk of serious damage to eyes.  
Method : OECD Test Guideline 405  
Result : Risk of serious damage to eyes.

### propan-2-ol

**67-63-0:**

Species : Rabbit  
Result : irritating

### sodium carbonate

**497-19-8:**

Species : Rabbit  
Result : Eye irritation

### Respiratory or skin sensitization

#### Product:

Remarks : No data available

#### Components:

##### didecyldimethylammonium chloride

**7173-51-5:**

Species : Guinea pig  
Method : Buehler Test  
Result : Did not cause sensitization on laboratory animals.

##### 2-aminoethanol

**141-43-5:**

Test Type : Maximization Test  
Species : Guinea pig  
Method : OECD Test Guideline 406  
Result : Did not cause sensitization on laboratory animals.

##### propan-2-ol

**67-63-0:**

Test Type : Buehler Test  
Species : Guinea pig  
Result : Does not cause skin sensitization.

##### didecyldimethylammonium chloride

**7173-51-5:**

Species : Guinea pig  
Method : Buehler Test  
Result : Did not cause sensitization on laboratory animals.

##### 2-aminoethanol

**141-43-5:**

Test Type : Maximization Test

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Species : Guinea pig  
Method : OECD Test Guideline 406  
Result : Did not cause sensitization on laboratory animals.

### propan-2-ol

#### 67-63-0:

Test Type : Buehler Test  
Species : Guinea pig  
Result : Does not cause skin sensitization.

### sodium carbonate

#### 497-19-8:

Result : Not a skin sensitizer.

### Germ cell mutagenicity

Germ cell mutagenicity : Not Rated

### Components:

#### didecyldimethylammonium chloride

##### 7173-51-5:

Genotoxicity in vitro : Test Type: Ames test  
Method: OECD Test Guideline 471  
Result: negative  
  
Test Type: Chromosome aberration test in vitro  
Result: negative  
  
Genotoxicity in vivo : Test Type: in vivo assay  
Species: Rat  
Application Route: Oral  
Method: see user defined free text  
Remarks: negative

### propan-2-ol

#### 67-63-0:

Genotoxicity in vitro : Test Type: Ames test  
Test system: Salmonella typhimurium  
Metabolic activation: with and without metabolic activation  
Result: negative

#### didecyldimethylammonium chloride

##### 7173-51-5:

Genotoxicity in vitro : Test Type: Ames test  
Method: OECD Test Guideline 471  
Result: negative  
  
Test Type: Chromosome aberration test in vitro  
Result: negative  
  
Genotoxicity in vivo : Test Type: in vivo assay  
Species: Rat

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Application Route: Oral  
Method: see user defined free text  
Remarks: negative

### propan-2-ol

#### 67-63-0:

- Genotoxicity in vitro : Test Type: Ames test  
Test system: Salmonella typhimurium  
Metabolic activation: with and without metabolic activation  
Result: negative
- Carcinogenicity : Not Rated
- Reproductive toxicity : Not Rated
- STOT-single exposure : The substance or mixture is not classified as specific target organ toxicant, single exposure.
- STOT-repeated exposure : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
- Aspiration toxicity : Not Rated

## 11.2 Information on other hazards

### Endocrine disrupting properties

#### Product:

- Assessment : 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.

### Further information

#### Product:

- Remarks : No data available

---

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Components:

#### didecyldimethylammonium chloride

##### 7173-51-5:

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 1,0 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203
- LC50 (Pimephales promelas (fathead minnow)): 0,19 mg/l  
Exposure time: 96 h  
Method: see user defined free text  
GLP: yes

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- NOEC (Danio rerio (zebra fish)): 0,032 mg/l  
Exposure time: 34 d  
Method: see user defined free text
- LC50 (Danio rerio (zebra fish)): 0,97 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203
- LC50 (Danio rerio (zebra fish)): 0,49 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,062 mg/l  
Exposure time: 48 h  
Test Type: Immobilization  
Method: see user defined free text
- NOEC (Daphnia magna (Water flea)): 0,01 mg/l  
Exposure time: 21 d  
Test Type: Reproduction Test  
Method: OECD Test Guideline 211
- EC50 (Daphnia magna (Water flea)): 0,057 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202
- EC50 (Daphnia): 0,03 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202
- EC50 (Daphnia): 0,021 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 211
- NOEC (Daphnia magna (Water flea)): 0,014 mg/l  
Exposure time: 21 d
- Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): 0,026 mg/l  
Exposure time: 96 h  
Test Type: Growth inhibition  
Analytical monitoring: yes  
Method: OECD Test Guideline 201  
GLP: yes
- EC50 (Pseudokirchneriella subcapitata (green algae)): 0,053 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201
- NOEC (Pseudokirchneriella subcapitata (green algae)): 0,013 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201
- EC50 (Selenastrum capricornutum (green algae)): 0,06 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201
- M-Factor (Acute aquatic toxicity) : 10
- Toxicity to microorganisms : EC50 (activated sludge): 11 mg/l  
Exposure time: 3 h

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- Test Type: Respiration inhibition  
Method: OECD Test Guideline 209
- EC50 : 17,9 mg/l  
Exposure time: 3 h  
Method: OECD Test Guideline 209
- EC20 : 8,9 mg/l  
Exposure time: 3 h  
Method: OECD Test Guideline 209
- Toxicity to fish (Chronic toxicity) : NOEC: 0,032 mg/l  
Exposure time: 34 d  
Species: Danio rerio (zebra fish)  
Analytical monitoring: yes  
Method: OECD Test Guideline 210  
GLP: yes
- Toxicity to soil dwelling organisms : NOEC: > 1.000 mg/kg  
Exposure time: 14 d  
Species: Eisenia fetida (earthworms)  
Method: OECD Test Guideline 207
- Plant toxicity : EC50: 283 - 1.670 mg/kg  
Exposure time: 14 d  
Method: OECD 208
- Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides**  
**68424-85-1:**
- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0,85 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203
- NOEC (Pimephales promelas (fathead minnow)): 0,0322 mg/l  
Exposure time: 28 d
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1 mg/l  
Exposure time: 48 h
- EC50 (Daphnia): 0,016 mg/l  
Exposure time: 48 h
- NOEC (Daphnia): 0,025 mg/l  
Exposure time: 21 d  
Method: OECD Test Guideline 211
- Toxicity to algae/aquatic plants : IC50 (Desmodesmus subspicatus (green algae)): 1 mg/l  
Exposure time: 72 h
- EC10 (Selenastrum capricornutum (green algae)): 0,0025 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201
- EC50 (Selenastrum capricornutum (green algae)): 0,025 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201
- M-Factor (Acute aquatic toxicity) : 10

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended



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Toxicity to microorganisms : EC20 (activated sludge): 5 mg/l  
Exposure time: 0,5 h  
Method: OECD Test Guideline 209

M-Factor (Chronic aquatic toxicity) : 1

### 2-aminoethanol

#### 141-43-5:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 150 mg/l  
Exposure time: 96 h

LC50 (Lepomis macrochirus (Bluegill sunfish)): 329 mg/l  
Exposure time: 96 h

LC50 (Cyprinus carpio (Carp)): 349 mg/l  
Exposure time: 96 h  
Test Type: semi-static test  
Method: OECD Test Guideline 203

LC50 (Carassius auratus (goldfish)): 170 mg/l  
Exposure time: 96 h  
Test Type: static test

LC50 (Leuciscus idus (Golden orfe)): 224 mg/l  
Exposure time: 48 h

LC50 (Oncorhynchus mykiss (rainbow trout)): 105 mg/l  
Exposure time: 96 h

(Oryzias latipes (Orange-red killifish)): > 100 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 27,04 mg/l  
Exposure time: 48 h  
Test Type: static test  
Method: OECD Test Guideline 202

NOEC (Daphnia magna (Water flea)): 0,85 mg/l  
Exposure time: 21 d  
Method: OECD Test Guideline 211

EC50 (Daphnia magna (Water flea)): 65 mg/l  
Exposure time: 48 h  
Test Type: static test  
Method: EG 84/449

Toxicity to algae/aquatic plants : EC50 (Selenastrum capricornutum): 2,8 mg/l  
Exposure time: 72 h  
Test Type: Growth inhibition  
Method: OECD Test Guideline 201

EC50 (Scenedesmus subspicatus): 22 mg/l  
Exposure time: 72 h  
Test Type: Growth inhibition

NOEC (Selenastrum capricornutum): 1 mg/l  
Exposure time: 72 h  
Test Type: Growth inhibition

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- Method: OECD Test Guideline 201
- EC50 (*Scenedesmus subspicatus*): 15 mg/l  
Exposure time: 72 h
- EC50 (*Selenastrum capricornutum*): 2,5 mg/l  
Exposure time: 72 h
- EC10 (*Pseudokirchneriella subcapitata* (green algae)): 0,7 mg/l  
Exposure time: 72 h  
Test Type: Growth inhibition  
Method: OECD Test Guideline 201
- Toxicity to microorganisms : EC20 (activated sludge): > 1.000 mg/l  
Exposure time: 0,5 h  
Method: OECD Test Guideline 209
- EC50 (*Pseudomonas putida*): 110 mg/l  
Exposure time: 16 h  
Method: DIN 38412
- EC50 (activated sludge): > 1.000 mg/l  
Exposure time: 3 h  
Method: OECD Test Guideline 209
- EC50 (*Pseudomonas putida*): 110 mg/l  
Exposure time: 17 h  
Test Type: Respiration inhibition
- Toxicity to fish (Chronic toxicity) : NOEC: 1,2 mg/l  
Exposure time: 30 d  
Species: *Oryzias latipes* (Orange-red killifish)
- Toxicity to soil dwelling organisms : EC50: 4.033 mg/kg  
Exposure time: 63 d  
Species: *Eisenia fetida* (earthworms)
- propan-2-ol**  
**67-63-0:**
- Toxicity to fish : LC50 (*Lepomis macrochirus* (Bluegill sunfish)): 1.400 mg/l  
Exposure time: 96 h
- LC50 (*Pimephales promelas* (fathead minnow)): 9.640 mg/l  
Exposure time: 96 h
- LC50 (*Leuciscus idus* (Golden orfe)): > 100 mg/l  
Exposure time: 48 h  
Test Type: static test  
GLP: no
- Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): 13.299 mg/l  
Exposure time: 48 h  
Test Type: Immobilization  
Method: OECD Test Guideline 202
- EC50 (*Daphnia magna* (Water flea)): 9.714 mg/l  
Exposure time: 24 h

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EC50 (Daphnia magna (Water flea)): > 100 mg/l  
Exposure time: 48 h  
Test Type: static test  
GLP: no

(Daphnia): > 10.000 mg/l  
Method: OECD Test Guideline 202

NOEC (Daphnia magna (Water flea)): 30 mg/l  
Exposure time: 21 d

EC50 (Daphnia magna (Water flea)): 10.000 mg/l  
Exposure time: 48 h

Toxicity to algae/aquatic plants : IC50 (Desmodesmus subspicatus (green algae)): > 1.000 mg/l  
Exposure time: 72 h  
Test Type: Growth inhibition

EC50 (Pseudokirchneriella subcapitata (microalgae)): > 100 mg/l  
Exposure time: 72 h  
Test Type: static test  
GLP: no

ErC50 (Pseudokirchneriella subcapitata (green algae)): > 1.000 mg/l  
Exposure time: 72 h

EC50 (Scenedesmus subspicatus): > 100 mg/l  
Exposure time: 72 h  
Test Type: static test

Toxicity to microorganisms : EC50 (Aliivibrio fischeri): 17.700 mg/l  
Exposure time: 5 min

EC10 (Pseudomonas putida): 5.175 mg/l  
Exposure time: 18 h  
Method: DIN 38412

### didecyldimethylammonium chloride

7173-51-5:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 1,0 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

LC50 (Pimephales promelas (fathead minnow)): 0,19 mg/l  
Exposure time: 96 h  
Method: see user defined free text  
GLP: yes

NOEC (Danio rerio (zebra fish)): 0,032 mg/l  
Exposure time: 34 d  
Method: see user defined free text

LC50 (Danio rerio (zebra fish)): 0,97 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

LC50 (Danio rerio (zebra fish)): 0,49 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

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- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,062 mg/l  
Exposure time: 48 h  
Test Type: Immobilization  
Method: see user defined free text
- NOEC (Daphnia magna (Water flea)): 0,01 mg/l  
Exposure time: 21 d  
Test Type: Reproduction Test  
Method: OECD Test Guideline 211
- EC50 (Daphnia magna (Water flea)): 0,057 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202
- EC50 (Daphnia): 0,03 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202
- EC50 (Daphnia): 0,021 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 211
- NOEC (Daphnia magna (Water flea)): 0,014 mg/l  
Exposure time: 21 d
- Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): 0,026 mg/l  
Exposure time: 96 h  
Test Type: Growth inhibition  
Analytical monitoring: yes  
Method: OECD Test Guideline 201  
GLP: yes
- EC50 (Pseudokirchneriella subcapitata (green algae)): 0,053 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201
- NOEC (Pseudokirchneriella subcapitata (green algae)): 0,013 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201
- EC50 (Selenastrum capricornutum (green algae)): 0,06 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201
- M-Factor (Acute aquatic toxicity) : 10
- Toxicity to microorganisms : EC50 (activated sludge): 11 mg/l  
Exposure time: 3 h  
Test Type: Respiration inhibition  
Method: OECD Test Guideline 209
- EC50 : 17,9 mg/l  
Exposure time: 3 h  
Method: OECD Test Guideline 209
- EC20 : 8,9 mg/l  
Exposure time: 3 h  
Method: OECD Test Guideline 209
- Toxicity to fish (Chronic toxicity) : NOEC: 0,032 mg/l  
Exposure time: 34 d

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Species: Danio rerio (zebra fish)  
Analytical monitoring: yes  
Method: OECD Test Guideline 210  
GLP: yes

Toxicity to soil dwelling organisms : NOEC: > 1.000 mg/kg  
Exposure time: 14 d  
Species: Eisenia fetida (earthworms)  
Method: OECD Test Guideline 207

Plant toxicity : EC50: 283 - 1.670 mg/kg  
Exposure time: 14 d  
Method: OECD 208

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

#### 68424-85-1:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0,85 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203

NOEC (Pimephales promelas (fathead minnow)): 0,0322 mg/l  
Exposure time: 28 d

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1 mg/l  
Exposure time: 48 h

EC50 (Daphnia): 0,016 mg/l  
Exposure time: 48 h

NOEC (Daphnia): 0,025 mg/l  
Exposure time: 21 d  
Method: OECD Test Guideline 211

Toxicity to algae/aquatic plants : IC50 (Desmodesmus subspicatus (green algae)): 1 mg/l  
Exposure time: 72 h

EC10 (Selenastrum capricornutum (green algae)): 0,0025 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

EC50 (Selenastrum capricornutum (green algae)): 0,025 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 10

Toxicity to microorganisms : EC20 (activated sludge): 5 mg/l  
Exposure time: 0,5 h  
Method: OECD Test Guideline 209

M-Factor (Chronic aquatic toxicity) : 1

### 2-aminoethanol

#### 141-43-5:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 150 mg/l  
Exposure time: 96 h

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- LC50 (*Lepomis macrochirus* (Bluegill sunfish)): 329 mg/l  
Exposure time: 96 h
- LC50 (*Cyprinus carpio* (Carp)): 349 mg/l  
Exposure time: 96 h  
Test Type: semi-static test  
Method: OECD Test Guideline 203
- LC50 (*Carassius auratus* (goldfish)): 170 mg/l  
Exposure time: 96 h  
Test Type: static test
- LC50 (*Leuciscus idus* (Golden orfe)): 224 mg/l  
Exposure time: 48 h
- LC50 (*Oncorhynchus mykiss* (rainbow trout)): 105 mg/l  
Exposure time: 96 h
- (*Oryzias latipes* (Orange-red killifish)): > 100 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): 27,04 mg/l  
Exposure time: 48 h  
Test Type: static test  
Method: OECD Test Guideline 202
- NOEC (*Daphnia magna* (Water flea)): 0,85 mg/l  
Exposure time: 21 d  
Method: OECD Test Guideline 211
- EC50 (*Daphnia magna* (Water flea)): 65 mg/l  
Exposure time: 48 h  
Test Type: static test  
Method: EG 84/449
- Toxicity to algae/aquatic plants : EC50 (*Selenastrum capricornutum*): 2,8 mg/l  
Exposure time: 72 h  
Test Type: Growth inhibition  
Method: OECD Test Guideline 201
- EC50 (*Scenedesmus subspicatus*): 22 mg/l  
Exposure time: 72 h  
Test Type: Growth inhibition
- NOEC (*Selenastrum capricornutum*): 1 mg/l  
Exposure time: 72 h  
Test Type: Growth inhibition  
Method: OECD Test Guideline 201
- EC50 (*Scenedesmus subspicatus*): 15 mg/l  
Exposure time: 72 h
- EC50 (*Selenastrum capricornutum*): 2,5 mg/l  
Exposure time: 72 h
- EC10 (*Pseudokirchneriella subcapitata* (green algae)): 0,7 mg/l  
Exposure time: 72 h  
Test Type: Growth inhibition  
Method: OECD Test Guideline 201

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- Toxicity to microorganisms : EC20 (activated sludge): > 1.000 mg/l  
Exposure time: 0,5 h  
Method: OECD Test Guideline 209
- EC50 (Pseudomonas putida): 110 mg/l  
Exposure time: 16 h  
Method: DIN 38412
- EC50 (activated sludge): > 1.000 mg/l  
Exposure time: 3 h  
Method: OECD Test Guideline 209
- EC50 (Pseudomonas putida): 110 mg/l  
Exposure time: 17 h  
Test Type: Respiration inhibition
- Toxicity to fish (Chronic toxicity) : NOEC: 1,2 mg/l  
Exposure time: 30 d  
Species: Oryzias latipes (Orange-red killifish)
- Toxicity to soil dwelling organisms : EC50: 4.033 mg/kg  
Exposure time: 63 d  
Species: Eisenia fetida (earthworms)

### propan-2-ol

#### 67-63-0:

- Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 1.400 mg/l  
Exposure time: 96 h
- LC50 (Pimephales promelas (fathead minnow)): 9.640 mg/l  
Exposure time: 96 h
- LC50 (Leuciscus idus (Golden orfe)): > 100 mg/l  
Exposure time: 48 h  
Test Type: static test  
GLP: no
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 13.299 mg/l  
Exposure time: 48 h  
Test Type: Immobilization  
Method: OECD Test Guideline 202
- EC50 (Daphnia magna (Water flea)): 9.714 mg/l  
Exposure time: 24 h
- EC50 (Daphnia magna (Water flea)): > 100 mg/l  
Exposure time: 48 h  
Test Type: static test  
GLP: no
- (Daphnia): > 10.000 mg/l  
Method: OECD Test Guideline 202
- NOEC (Daphnia magna (Water flea)): 30 mg/l  
Exposure time: 21 d
- EC50 (Daphnia magna (Water flea)): 10.000 mg/l  
Exposure time: 48 h

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- Toxicity to algae/aquatic plants : IC50 (Desmodesmus subspicatus (green algae)): > 1.000 mg/l  
Exposure time: 72 h  
Test Type: Growth inhibition
- EC50 (Pseudokirchneriella subcapitata (microalgae)): > 100 mg/l  
Exposure time: 72 h  
Test Type: static test  
GLP: no
- ErC50 (Pseudokirchneriella subcapitata (green algae)): > 1.000 mg/l  
Exposure time: 72 h
- EC50 (Scenedesmus subspicatus): > 100 mg/l  
Exposure time: 72 h  
Test Type: static test
- Toxicity to microorganisms : EC50 (Aliivibrio fischeri): 17.700 mg/l  
Exposure time: 5 min
- EC10 (Pseudomonas putida): 5.175 mg/l  
Exposure time: 18 h  
Method: DIN 38412

### sodium carbonate

497-19-8:

- Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 300 mg/l  
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 200 - 227 mg/l  
Exposure time: 48 h
- EC50 (Daphnia): 264 mg/l  
Exposure time: 48 h
- EC50 (Ceriodaphnia dubia (water flea)): 200 - 227 mg/l  
Exposure time: 48 h  
Test Type: semi-static test

## 12.2 Persistence and degradability

### Components:

#### didecyldimethylammonium chloride

7173-51-5:

- Biodegradability : Biodegradation: 72 %  
Exposure time: 28 d  
Method: OECD 301 B  
Remarks: Readily biodegradable, according to appropriate OECD test.
- Result: rapidly biodegradable  
Biodegradation: > 70 %  
Method: OECD 301 D
- Biodegradation: 93,3 %  
Exposure time: 28 d  
GLP: yes
- Biodegradation: 91 %

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Exposure time: 24 - 70 d  
Method: OECD Test Guideline 303A

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

#### 68424-85-1:

Biodegradability : Result: rapidly biodegradable  
Biodegradation: > 60 %  
Method: OECD 301 D  
Remarks: Readily biodegradable, according to appropriate OECD test.

Result: Biodegradable  
Biodegradation: > 90 %  
Method: OECD Test Guideline 303A

### 2-aminoethanol

#### 141-43-5:

Biodegradability : Test Type: aerobic  
Inoculum: activated sludge  
Result: Readily biodegradable.  
Biodegradation: > 90 %  
Exposure time: 21 d  
Method: OECD 301 A

Result: rapidly biodegradable  
Biodegradation: 90 - 100 %  
Method: OECD 301 F

Biochemical Oxygen Demand (BOD) : 800 mg/g  
Incubation time: 5 d

ThOD : 1,31 g/g

### propan-2-ol

#### 67-63-0:

Biodegradability : Result: rapidly biodegradable  
Biodegradation: 95 %  
Exposure time: 21 d  
Method: OECD 301 E

Inoculum: activated sludge  
Result: rapidly biodegradable  
Biodegradation: 53 %  
Exposure time: 5 d

Result: rapidly biodegradable  
Biodegradation: > 70 %  
Exposure time: 10 d  
GLP: no

Biodegradation: 99,9 %  
Method: see user defined free text

Chemical Oxygen Demand (COD) : 2,32 g/kg

ThOD : 2,40 g/g

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### didecyldimethylammonium chloride

#### 7173-51-5:

Biodegradability : Biodegradation: 72 %  
Exposure time: 28 d  
Method: OECD 301 B  
Remarks: Readily biodegradable, according to appropriate OECD test.

Result: rapidly biodegradable  
Biodegradation: > 70 %  
Method: OECD 301 D

Biodegradation: 93,3 %  
Exposure time: 28 d  
GLP: yes

Biodegradation: 91 %  
Exposure time: 24 - 70 d  
Method: OECD Test Guideline 303A

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

#### 68424-85-1:

Biodegradability : Result: rapidly biodegradable  
Biodegradation: > 60 %  
Method: OECD 301 D  
Remarks: Readily biodegradable, according to appropriate OECD test.

Result: Biodegradable  
Biodegradation: > 90 %  
Method: OECD Test Guideline 303A

### 2-aminoethanol

#### 141-43-5:

Biodegradability : Test Type: aerobic  
Inoculum: activated sludge  
Result: Readily biodegradable.  
Biodegradation: > 90 %  
Exposure time: 21 d  
Method: OECD 301 A

Result: rapidly biodegradable  
Biodegradation: 90 - 100 %  
Method: OECD 301 F

Biochemical Oxygen Demand (BOD) : 800 mg/g  
Incubation time: 5 d

ThOD : 1,31 g/g

### propan-2-ol

#### 67-63-0:

Biodegradability : Result: rapidly biodegradable  
Biodegradation: 95 %  
Exposure time: 21 d  
Method: OECD 301 E

Inoculum: activated sludge

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Result: rapidly biodegradable  
Biodegradation: 53 %  
Exposure time: 5 d

Result: rapidly biodegradable  
Biodegradation: > 70 %  
Exposure time: 10 d  
GLP: no

Biodegradation: 99,9 %  
Method: see user defined free text

Chemical Oxygen Demand (COD) : 2,32 g/kg

ThOD : 2,40 g/g

### 12.3 Bioaccumulative potential

#### Components:

#### **Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides**

##### **68424-85-1:**

Bioaccumulation : Remarks: Does not bioaccumulate.

##### **2-aminoethanol**

##### **141-43-5:**

Bioaccumulation : Bioconcentration factor (BCF): 1

Remarks: Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

Partition coefficient: n-octanol/water : log Pow: -1,91 (25 °C)  
Method: OECD Test Guideline 107

log Pow: -2,3 (25 °C)  
pH: 6,8 - 7,3  
Method: OECD Test Guideline 107

##### **propan-2-ol**

##### **67-63-0:**

Bioaccumulation : Bioconcentration factor (BCF): 3

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

Partition coefficient: n-octanol/water : log Pow: 0,05

#### **Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides**

##### **68424-85-1:**

Bioaccumulation : Remarks: Does not bioaccumulate.

##### **2-aminoethanol**

##### **141-43-5:**

Bioaccumulation : Bioconcentration factor (BCF): 1

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

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accumulation in organisms is not expected.

Partition coefficient: n-octanol/water : log Pow: -1,91 (25 °C)  
Method: OECD Test Guideline 107

log Pow: -2,3 (25 °C)  
pH: 6,8 - 7,3  
Method: OECD Test Guideline 107

### propan-2-ol

#### 67-63-0:

Bioaccumulation : Bioconcentration factor (BCF): 3

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

Partition coefficient: n-octanol/water : log Pow: 0,05

## 12.4 Mobility in soil

### Components:

#### 2-aminoethanol

##### 141-43-5:

Distribution among environmental compartments : Medium: Soil  
Koc: 5  
Remarks: Highly mobile in soils

Stability in soil : Remarks: Will not adsorb on soil.

#### propan-2-ol

##### 67-63-0:

Distribution among environmental compartments : Koc: 25  
Remarks: Highly mobile in soils

#### 2-aminoethanol

##### 141-43-5:

Distribution among environmental compartments : Medium: Soil  
Koc: 5  
Remarks: Highly mobile in soils

Stability in soil : Remarks: Will not adsorb on soil.

#### propan-2-ol

##### 67-63-0:

Distribution among environmental compartments : Koc: 25  
Remarks: Highly mobile in soils

## 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.

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### Components:

#### 2-aminoethanol

##### 141-43-5:

Assessment : Not very persistent and very bioaccumulative (vPvB).. Not persistent, bioaccumulative, and toxic (PBT).

#### propan-2-ol

##### 67-63-0:

Assessment : Not very persistent and very bioaccumulative (vPvB).. Not persistent, bioaccumulative, and toxic (PBT).

#### 2-aminoethanol

##### 141-43-5:

Assessment : Not very persistent and very bioaccumulative (vPvB).. Not persistent, bioaccumulative, and toxic (PBT).

#### propan-2-ol

##### 67-63-0:

Assessment : Not very persistent and very bioaccumulative (vPvB).. Not persistent, bioaccumulative, and toxic (PBT).

### 12.6 Endocrine disrupting properties

#### Product:

Assessment : 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.

### 12.7 Other adverse effects

#### Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

- Product : The product should not be allowed to enter drains, water courses or the soil.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
In accordance with local and national regulations.
- Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Do not re-use empty containers.

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### SECTION 14: Transport information

#### 14.1 UN number or ID number

ADR : 1719  
IMDG : 1719  
IATA : 1719

#### 14.2 UN proper shipping name

ADR : CAUSTIC ALKALI LIQUID, N.O.S.  
(Didecyldimethylammonium chloride, Benzalkonium chloride)  
IMDG : CAUSTIC ALKALI LIQUID, N.O.S.  
(Didecyldimethylammonium chloride, Benzalkonium chloride)  
IATA : Caustic alkali liquid, n.o.s.

#### 14.3 Transport hazard class(es)

ADR : 8  
IMDG : 8  
IATA : 8

#### 14.4 Packing group

ADR  
Classification Code : C5  
Packaging group : II  
Hazard Identification Number : 80  
Labels : 8  
Tunnel restriction code : (E)  
IMDG  
Packaging group : II  
Labels : 8  
EmS Number : F-A, S-B  
IATA  
(Cargo) : Caustic alkali liquid, n.o.s.  
Packaging group : II  
Labels : 8

#### 14.5 Environmental hazards

ADR  
Environmentally hazardous : yes  
IMDG  
Marine pollutant : yes  
IATA  
Environmentally hazardous : no

#### 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.

For personal protection see section 8.

#### 14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

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### SECTION 15: Regulatory information

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

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : 7173-51-5

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : See Annex XVII to Regulation (EC) no 1907/2006 for Conditions of restriction

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

		Quantity 1	Quantity 2
E1	ENVIRONMENTAL HAZARDS	100 000067	200 000067

TA Luft List (Germany) : Total dust: Not applicable  
: Inorganic substances in powdered form: Not applicable  
: Inorganic substances in vapor or gaseous form: Not applicable  
: Organic Substances: : portionClass 1: 4,95 %  
: Carcinogenic substances: Not applicable  
: mutagenic: Not applicable  
: Toxic to reproduction: Not applicable

Volatile organic compounds (VOC) content : Directive 2010/75/EU of 24 November 2010 on industrial and livestock rearing emissions (integrated pollution prevention and control)  
Update: Percent volatile: 6,95 %

according to Detergents Regulation EC 648/2004 : <5% anionic surfactants, DIDECYLDIMONIUM CHLORIDE, BENZALKONIUM CHLORIDE

#### 15.2 Chemical Safety Assessment

### SECTION 16: Other information

#### Full text of H-Statements

H225 : Highly flammable liquid and vapor.  
H302 : Harmful if swallowed.  
H312 : Harmful in contact with skin.  
H314 : Causes severe skin burns and eye damage.  
H315 : Causes skin irritation.  
H318 : Causes serious eye damage.  
H319 : Causes serious eye irritation.  
H332 : Harmful if inhaled.  
H335 : May cause respiratory irritation.  
H336 : May cause drowsiness or dizziness.  
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.

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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
Skin Irrit.	:	Skin irritation
STOT SE	:	Specific target organ toxicity - single exposure
2006/15/EC	:	Europe. Indicative occupational exposure limit values
2006/15/EC / TWA	:	Limit Value - eight hours
2006/15/EC / STEL	:	Short term exposure limit

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 Standardization; 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 Organization 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, Authorization 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; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### Further information

#### Classification of the mixture:

Met. Corr. 1	H290
Skin Corr. 1	H314
Eye Dam. 1	H318
Aquatic Acute 1	H400
Aquatic Chronic 2	H411

#### Classification procedure:

Calculation method
Based on product data or assessment
Based on product data or assessment
Calculation method
Calculation method

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.

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