

# Safety Data Sheet

## according to Regulation (EC) No. 1907/2006 (REACH)

**Trade name :** MD 550 Mundspülbecken-Reiniger  
**Revision :** 11.12.2018  
**Print date :** 12.12.2018

**Version (Revision) :** 5.0.0 (4.0.1)

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

#### 1.1 Product identifier

MD 550 Mundspülbecken-Reiniger

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

##### Relevant identified uses

MD 550 is a special, ready-to-use, antibacterial preparation that cleans and cares for spittoon bowls of dental units.

##### Product Categories [PC]

PC35 - Washing and cleaning products

##### Uses advised against

None, if handled according to order.

##### Remark

The product is intended for professional use.

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

##### Supplier (manufacturer/importer/only representative/downstream user/distributor)

orochemie GmbH + Co. KG

**Street :** Max-Planck-Straße 27

**Postal code/city :** 70806 Kornwestheim

**Telephone :** +49 7154 1308-0

**Telefax :** +49 7154 1308-40

**Information contact :** DÜRR DENTAL SE, Höpfigheimer Str. 17, 74321 Bietigheim-Bissingen, Germany

Tel: +49 7142 705-0, Fax: +49 7142 705-500, info@duerrdental.com

in Great Britain/Ireland:

DÜRR DENTAL [Products] UK Ltd., 14 Linnell Way - Telford Way Industrial Estate, Kettering Northants NN16 8PS, United Kingdom

Tel: +44 1536 526740, Fax.: +44 1536 526749, info@duerruk.com

#### 1.4 Emergency telephone number

INT: +49 6132 84463 (24 h/7 d)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

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

Eye Irrit. 2 ; H319 - Serious eye damage/eye irritation : Category 2 ; Causes serious eye irritation.

Flam. Liq. 3 ; H226 - Flammable liquids : Category 3 ; Flammable liquid and vapour.

#### 2.2 Label elements

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

##### Hazard pictograms



Flame (GHS02) · Exclamation mark (GHS07)

##### Signal word

Warning

##### Hazard statements

H226

Flammable liquid and vapour.

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H319 Causes serious eye irritation.

### Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P280 Wear protective gloves and eye/face protection.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P403+P235 Store in a well-ventilated place. Keep cool.  
P501 Dispose of contents/container to hazardous or special waste collection point.

### 2.3 Other hazards

None

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Description

MD 550 contains alcohols, non-ionic surfactants, organic acids, benzylsalicylate, fragrances and auxiliary agents in aqueous solution.

#### Hazardous ingredients

ETHANOL ; REACH registration No. : 01-2119457610-43 ; EC No. : 200-578-6; CAS No. : 64-17-5

Weight fraction :  $\geq 40 - < 45$  %  
Classification 1272/2008 [CLP] : Flam. Liq. 2 ; H225 Eye Irrit. 2 ; H319

CITRIC ACID MONOHYDRATE ; REACH registration No. : 01-2119457026-42 ; EC No. : 201-069-1; CAS No. : 5949-29-1

Weight fraction :  $\geq 3 - < 8$  %  
Classification 1272/2008 [CLP] : Eye Irrit. 2 ; H319

PROPAN-2-OL ; REACH registration No. : 01-2119457558-25 ; EC No. : 200-661-7; CAS No. : 67-63-0

Weight fraction :  $\geq 1 - < 5$  %  
Classification 1272/2008 [CLP] : Flam. Liq. 2 ; H225 Eye Irrit. 2 ; H319 STOT SE 3 ; H336

HYDROXYETHYL CELLULOSE, CATIONIC ; REACH registration No. : - ; EC No. : Polymer; CAS No. : 68610-92-4

Weight fraction :  $< 0,5$  %  
Classification 1272/2008 [CLP] : Aquatic Chronic 2 ; H411

FATTY ALCOHOL ALKOXYLATE ; REACH registration No. : 02-2119552554-37 ; CAS No. : 111905-53-4

Weight fraction :  $< 0,25$  %  
Classification 1272/2008 [CLP] : Acute Tox. 4 ; H302 Eye Irrit. 2 ; H319 Aquatic Chronic 3 ; H412

BENZYL SALICYLATE ; REACH registration No. : 01-2119969442-31 ; EC No. : 204-262-9; CAS No. : 118-58-1

Weight fraction :  $< 0,1$  %  
Classification 1272/2008 [CLP] : Skin Sens. 1 ; H317 Eye Irrit. 2 ; H319 Aquatic Chronic 3 ; H412

#### Additional information

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

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information

When in doubt or if symptoms are observed, get medical advice.

#### Following inhalation

Provide fresh air. In case of respiratory tract irritation, consult a physician.

#### In case of skin contact

Wash with plenty of water. When in doubt or if symptoms are observed, get medical advice.

#### After eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart

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and consult an ophthalmologist.

### After ingestion

If swallowed, immediately drink: Water Never give anything by mouth to an unconscious person or a person with cramps. Do NOT induce vomiting. Call a physician immediately.

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

Causes serious eye irritation.

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

None

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Carbon dioxide (CO<sub>2</sub>) Extinguishing powder Water spray Water mist

##### Unsuitable extinguishing media

Full water jet

#### 5.2 Special hazards arising from the substance or mixture

None known.

##### Hazardous combustion products

Vapours can form explosive mixtures with air.

#### 5.3 Advice for firefighters

Cool endangered containers with water in case of fire.

##### Special protective equipment for firefighters

In case of fire: Wear self-contained breathing apparatus.

### SECTION 6: Accidental release measures

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

Use personal protection equipment. Remove all sources of ignition. When using do not smoke. See protective measures under point 7 and 8.

##### For non-emergency personnel

Use personal protection equipment. See protective measures under point 7 and 8.

##### For emergency responders

###### Personal protection equipment

See protective measures under point 7 and 8.

#### 6.2 Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

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

##### For cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Collect in closed and suitable containers for disposal.

##### Other information

Treat the recovered material as prescribed in the section on waste disposal.

#### 6.4 Reference to other sections

None

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

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Keep/Store only in original container. Please note safety instructions and directions for use on the drum. Handle and open container with care. Keep away from sources of ignition - No smoking. Provide adequate ventilation. Do not breathe vapour/aerosol.

### Protective measures

#### Measures to prevent fire

Usual measures for fire prevention. Keep away from sources of ignition - No smoking.

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

#### Requirements for storage rooms and vessels

Keep/Store only in original container. Keep container tightly closed. Keep in a cool, well-ventilated place. Do not store in temperatures below 5 °C.

#### Hints on joint storage

Do not store together with oxidizing, self-igniting substances and highly flammable solid substances. Store the foodstuffs separately.

### 7.3 Specific end use(s)

None

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limit values

ETHANOL ; CAS No. : 64-17-5

Limit value type (country of origin) : TLV/TWA ( GB )

Limit value : 1000 ppm / 1920 mg/m<sup>3</sup>

PROPAN-2-OL ; CAS No. : 67-63-0

Limit value type (country of origin) : TLV/STEL ( GB )

Limit value : 500 ppm / 1250 mg/m<sup>3</sup>

Limit value type (country of origin) : TLV/TWA ( GB )

Limit value : 400 ppm / 999 mg/m<sup>3</sup>

#### DNEL/DMEL and PNEC values

There are no data available on the preparation itself.

##### DNEL/DMEL

Limit value type : DNEL Consumer (local) ( ETHANOL ; CAS No. : 64-17-5 )

Exposure route : Inhalation

Exposure frequency : Short-term (acute)

Limit value : 950 mg/m<sup>3</sup>

Limit value type : DNEL Consumer (systemic) ( ETHANOL ; CAS No. : 64-17-5 )

Exposure route : Oral

Exposure frequency : Long-term (repeated)

Limit value : 87 mg/kg

Safety factor : 24 h

Limit value type : DNEL Consumer (systemic) ( ETHANOL ; CAS No. : 64-17-5 )

Exposure route : Dermal

Exposure frequency : Long-term (repeated)

Limit value : 206 mg/kg

Safety factor : 24 h

Limit value type : DNEL Consumer (systemic) ( ETHANOL ; CAS No. : 64-17-5 )

Exposure route : Inhalation

Exposure frequency : Long-term (repeated)

Limit value : 114 mg/m<sup>3</sup>

Limit value type : DNEL worker (local) ( ETHANOL ; CAS No. : 64-17-5 )

Exposure route : Inhalation

Exposure frequency : Short-term (acute)

Limit value : 1900 mg/m<sup>3</sup>

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Limit value type : DNEL worker (systemic) ( ETHANOL ; CAS No. : 64-17-5 )  
Exposure route : Dermal  
Exposure frequency : Long-term (repeated)  
Limit value : 343 mg/kg  
Safety factor : 24 h

Limit value type : DNEL worker (systemic) ( ETHANOL ; CAS No. : 64-17-5 )  
Exposure route : Inhalation  
Exposure frequency : Long-term (repeated)  
Limit value : 950 mg/m<sup>3</sup>

Limit value type : DNEL Consumer (systemic) ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Exposure route : Dermal  
Exposure frequency : Long-term (repeated)  
Limit value : 319 mg/kg  
Safety factor : 24 h

Limit value type : DNEL Consumer (systemic) ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Exposure route : Inhalation  
Exposure frequency : Long-term (repeated)  
Limit value : 89 mg/m<sup>3</sup>

Limit value type : DNEL Consumer (systemic) ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Exposure route : Oral  
Exposure frequency : Long-term (repeated)  
Limit value : 26 mg/kg  
Safety factor : 24 h

Limit value type : DNEL worker (systemic) ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Exposure route : Dermal  
Exposure frequency : Long-term (repeated)  
Limit value : 888 mg/kg  
Safety factor : 24 h

Limit value type : DNEL worker (systemic) ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Exposure route : Inhalation  
Exposure frequency : Long-term (repeated)  
Limit value : 500 mg/m<sup>3</sup>

### PNEC

Limit value type : PNEC (Aquatic, freshwater) ( ETHANOL ; CAS No. : 64-17-5 )  
Limit value : 0,96 mg/l

Limit value type : PNEC (Aquatic, marine water) ( ETHANOL ; CAS No. : 64-17-5 )  
Limit value : 0,79 mg/l

Limit value type : PNEC (Industrial) ( ETHANOL ; CAS No. : 64-17-5 )  
Exposure route : Soil  
Limit value : 0,63 mg/kg

Limit value type : PNEC (Sediment, freshwater) ( ETHANOL ; CAS No. : 64-17-5 )  
Limit value : 3,6 mg/kg

Limit value type : PNEC (Sediment, marine water) ( ETHANOL ; CAS No. : 64-17-5 )  
Limit value : 2,9 mg/kg

Limit value type : PNEC (Secondary poisoning) ( ETHANOL ; CAS No. : 64-17-5 )  
Limit value : 729 mg/kg

Limit value type : PNEC (Sewage treatment plant) ( ETHANOL ; CAS No. : 64-17-5 )  
Limit value : 580 mg/l

Limit value type : PNEC (Aquatic, freshwater) ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Limit value : 140,9 mg/l

Limit value type : PNEC (Aquatic, marine water) ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Limit value : 140,9 mg/l

Limit value type : PNEC (Industrial) ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Exposure route : Soil  
Limit value : 28 mg/kg

Limit value type : PNEC (Sediment, freshwater) ( PROPAN-2-OL ; CAS No. : 67-63-0 )

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Limit value : 552 mg/kg  
Limit value type : PNEC (Sediment, marine water) ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Limit value : 552 mg/kg  
Limit value type : PNEC (Secondary poisoning) ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Limit value : 160 mg/kg  
Limit value type : PNEC (Sewage treatment plant) ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Limit value : 2251 mg/l

### 8.2 Exposure controls

#### Personal protection equipment

##### Eye/face protection

Eye glasses with side protection DIN EN 166

##### Skin protection

###### Hand protection

Short-term exposure (Level 2: < 30 min): disposable gloves to EN374 category III, e.g. nitrile rubber, material thickness 0.1 mm.

Long-term exposure (Level 6: < 480 min): protective gloves to EN374 category III, e.g. nitrile rubber, material thickness 0.7 mm.

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits.

###### Body protection

Body protection: not required.

##### Respiratory protection

Usually no personal respirative protection necessary.

#### General health and safety measures

Keep away from food, drink and animal feedingstuffs. Avoid contact with skin, eyes and clothes. Remove contaminated, saturated clothing. Wash hands before breaks and after work. Separate storage of work clothes. When using do not eat, drink, smoke, sniff.

#### Occupational exposure controls

##### Technical measures to prevent exposure

Provide adequate ventilation.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

**Appearance :** liquid

**Colour :** colourless

**Odour :** Alcohol

#### Safety relevant basis data

<b>Melting point/melting range :</b>	( 1013 hPa )		No data available
<b>Initial boiling point and boiling range :</b>	( 1013 hPa )	approx.	95 °C
<b>Decomposition temperature :</b>	( 1013 hPa )		No data available
<b>Flash point :</b>			23 °C
<b>Ignition temperature :</b>			425 °C
<b>Lower explosion limit :</b>			3,5 Vol-%
<b>Upper explosion limit :</b>			15 Vol-%
<b>Vapour pressure :</b>	( 50 °C )	approx.	160 hPa
<b>Density :</b>	( 20 °C )		0,92 - 0,96 g/cm <sup>3</sup>
<b>Solvent separation test :</b>	( 20 °C )	<	3 %
<b>Water solubility :</b>	( 20 °C )		100 Wt %
<b>pH value :</b>			2 - 3
<b>log P O/W :</b>			No data available
<b>Flow time :</b>	( 20 °C )	<	20 s DIN-cup 4 mm

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**Odour threshold :** No data available  
**Maximum VOC content (EC) :** 42,8 Wt %  
**Oxidising liquids :** Not applicable.  
**Explosive properties :** Not applicable.  
**Corrosive to metals :** Not corrosive to metals.

### 9.2 Other information

None

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

None, if handled according to order.

### 10.2 Chemical stability

Stable under recommended storage and handling conditions (see section 7).

### 10.3 Possibility of hazardous reactions

Vapours can form explosive mixtures with air.

### 10.4 Conditions to avoid

No information available.

### 10.5 Incompatible materials

Oxidizing agent.

### 10.6 Hazardous decomposition products

None known.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

There are no data available on the mixture itself.

#### Acute effects

##### Acute oral toxicity

Parameter :	ATEmix calculated
Exposure route :	Oral
Effective dose :	not relevant
Parameter :	LD50 ( FATTY ALCOHOL ALKOXYLATE ; CAS No. : 111905-53-4 )
Exposure route :	Oral
Species :	Rat
Effective dose :	> 300 - 2000 mg/kg
Parameter :	LD50 ( CITRIC ACID MONOHYDRATE ; CAS No. : 5949-29-1 )
Exposure route :	Oral
Species :	Mouse
Effective dose :	5400 mg/kg
Parameter :	LD50 ( ETHANOL ; CAS No. : 64-17-5 )
Exposure route :	Oral
Species :	Rat
Effective dose :	10470 mg/kg
Method :	OECD 401
Parameter :	LD50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )
Exposure route :	Oral
Species :	Rat
Effective dose :	5280 mg/kg
Parameter :	LD50 ( HYDROXYETHYL CELLULOSE, CATIONIC ; CAS No. : 68610-92-4 )
Exposure route :	Oral
Species :	Rat

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Effective dose : > 10000 mg/kg  
Parameter : LD50 ( CITRIC ACID MONOHYDRATE ; CAS No. : 5949-29-1 )  
Exposure route : Oral  
Species : Rat  
Effective dose : 11700 mg/kg  
Parameter : LD50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Exposure route : Oral  
Species : Rat  
Effective dose : 5840 mg/kg  
Method : OECD 401  
Parameter : LD50 ( ETHANOL ; CAS No. : 64-17-5 )  
Exposure route : Oral  
Species : Rabbit  
Effective dose : 6300 mg/kg

### Practical experience/human evidence

Causes serious eye irritation.

### Acute dermal toxicity

Parameter : ATEmix calculated  
Exposure route : Dermal  
Effective dose : not relevant  
Parameter : LD50 ( HYDROXYETHYL CELLULOSE, CATIONIC ; CAS No. : 68610-92-4 )  
Exposure route : Dermal  
Species : Rabbit  
Effective dose : > 4000 mg/kg  
Parameter : LD50 ( CITRIC ACID MONOHYDRATE ; CAS No. : 5949-29-1 )  
Exposure route : Dermal  
Species : Rat  
Effective dose : > 2000 mg/kg  
Parameter : LD50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Exposure route : Dermal  
Species : Rabbit  
Effective dose : 12800 mg/kg  
Parameter : LD50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Exposure route : Dermal  
Species : Rabbit  
Effective dose : 13900 mg/kg  
Method : OECD 402  
Parameter : LD50 ( ETHANOL ; CAS No. : 64-17-5 )  
Exposure route : Dermal  
Species : Rabbit  
Effective dose : 20 g/kg

### Acute inhalation toxicity

Parameter : ATEmix calculated  
Exposure route : Inhalative (vapour)  
Effective dose : not relevant  
Parameter : LC50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Exposure route : Inhalation  
Species : Mouse  
Effective dose : 27,2 mg/l  
Exposure time : 4 h  
Parameter : LC50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Exposure route : Inhalation  
Species : Rat  
Effective dose : > 25 mg/l  
Exposure time : 6 h  
Method : OECD 403



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Parameter : LC50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Exposure route : Inhalation  
Species : Rat  
Effective dose : 72,6 mg/l  
Exposure time : 4 h  
Parameter : LC50 ( ETHANOL ; CAS No. : 64-17-5 )  
Exposure route : Inhalation  
Species : Rat  
Effective dose : 125 mg/l  
Exposure time : 4 h  
Method : OECD 403

### Irritant and corrosive effects

Causes serious eye irritation.

### Sensitisation

No data available.

### Repeated dose toxicity (subacute, subchronic, chronic)

#### Subacute oral toxicity

Parameter : NOAEL(C) ( ETHANOL ; CAS No. : 64-17-5 )  
Exposure route : Oral  
Species : Rat  
Effective dose : 1730 mg/kg  
Exposure time : 24 h  
Method : OECD 408

#### Subacute inhalation toxicity

Parameter : NOAEL(C) ( ETHANOL ; CAS No. : 64-17-5 )  
Exposure route : Inhalation  
Species : Rat  
Effective dose : > 20 mg/l

### CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

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

### 11.5 Additional information

The classification was carried out according to the calculation method of Regulation No. (EC) 1272/2008 [CLP].

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Aquatic toxicity

There are no data available on the preparation itself.

#### Acute (short-term) fish toxicity

Parameter : LC50 ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Oncorhynchus mykiss (Rainbow trout)  
Evaluation parameter : Acute (short-term) fish toxicity  
Effective dose : 11200 mg/l  
Parameter : LC50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Species : Pimephales promelas (fathead minnow)  
Evaluation parameter : Acute (short-term) fish toxicity  
Effective dose : 9640 mg/l  
Exposure time : 96 h  
Parameter : LC50 ( CITRIC ACID MONOHYDRATE ; CAS No. : 5949-29-1 )  
Species : Leuciscus idus (golden orfe)  
Evaluation parameter : Acute (short-term) fish toxicity  
Effective dose : 440 - 760 mg/l  
Exposure time : 96 h

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Parameter : LC50 ( FATTY ALCOHOL ALKOXYLATE ; CAS No. : 111905-53-4 )  
Species : Leuciscus idus (golden orfe)  
Evaluation parameter : Acute (short-term) fish toxicity  
Effective dose : > 1 - 10 mg/l  
Exposure time : 48 h

Parameter : LC50 ( HYDROXYETHYL CELLULOSE, CATIONIC ; CAS No. : 68610-92-4 )  
Species : Pimephales promelas (fathead minnow)  
Evaluation parameter : Acute (short-term) fish toxicity  
Effective dose : 2,4 - 3,7 mg/l  
Exposure time : 96 h

Parameter : LC50 ( CITRIC ACID MONOHYDRATE ; CAS No. : 5949-29-1 )  
Species : Carassius auratus (goldfish)  
Evaluation parameter : Acute (short-term) fish toxicity  
Effective dose : 440 - 760 mg/l  
Exposure time : 96 h

Parameter : LC50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Species : Leuciscus idus (golden orfe)  
Evaluation parameter : Acute (short-term) fish toxicity  
Effective dose : > 100 mg/l  
Exposure time : 48 h

Parameter : LC50 ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Pimephales promelas (fathead minnow)  
Evaluation parameter : Acute (short-term) fish toxicity  
Effective dose : > 15000 mg/l  
Exposure time : 96 h

### Chronic (long-term) fish toxicity

Parameter : NOEC ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Ceriodaphnia spec  
Evaluation parameter : Acute (short-term) daphnia toxicity  
Effective dose : 9,6 mg/l

### Acute (short-term) daphnia toxicity

Parameter : EC50 ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Daphnia magna (Big water flea)  
Evaluation parameter : Acute (short-term) daphnia toxicity  
Effective dose : 9200 - 14300 mg/l  
Exposure time : 48 h

Parameter : EC50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Species : Daphnia magna (Big water flea)  
Evaluation parameter : Acute (short-term) daphnia toxicity  
Effective dose : 13299 mg/l  
Exposure time : 48 h

Parameter : EC50 ( CITRIC ACID MONOHYDRATE ; CAS No. : 5949-29-1 )  
Species : Daphnia magna (Big water flea)  
Evaluation parameter : Acute (short-term) daphnia toxicity  
Effective dose : 120 mg/l  
Exposure time : 72 h

Parameter : EC50 ( FATTY ALCOHOL ALKOXYLATE ; CAS No. : 111905-53-4 )  
Species : Daphnia magna (Big water flea)  
Evaluation parameter : Acute (short-term) daphnia toxicity  
Effective dose : > 1 - 10 mg/l  
Exposure time : 48 h

Parameter : EC50 ( HYDROXYETHYL CELLULOSE, CATIONIC ; CAS No. : 68610-92-4 )  
Species : Daphnia magna (Big water flea)  
Evaluation parameter : Acute (short-term) daphnia toxicity  
Effective dose : 34 - 48 mg/l  
Exposure time : 48 h

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Parameter : EC50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Species : Daphnia magna (Big water flea)  
Evaluation parameter : Acute (short-term) daphnia toxicity  
Effective dose : 9714 mg/l  
Exposure time : 24 h

Parameter : EC50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Species : Daphnia magna (Big water flea)  
Evaluation parameter : Acute (short-term) daphnia toxicity  
Effective dose : > 100 mg/l  
Exposure time : 48 h

Parameter : EC50 ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Ceriodaphnia spec  
Evaluation parameter : Acute (short-term) daphnia toxicity  
Effective dose : 1806 mg/l

### Chronic (long-term) daphnia toxicity

Parameter : NOEC ( FATTY ALCOHOL ALKOXYLATE ; CAS No. : 111905-53-4 )  
Species : Daphnia magna (Big water flea)  
Evaluation parameter : Chronic (long-term) daphnia toxicity  
Effective dose : > 0,1 - 1 mg/l

### Acute (short-term) algae toxicity

Parameter : EC50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Species : Pseudokirchneriella subcapitata  
Evaluation parameter : Acute (short-term) algae toxicity  
Effective dose : > 1000 mg/l  
Exposure time : 72 h

Parameter : EC50 ( CITRIC ACID MONOHYDRATE ; CAS No. : 5949-29-1 )  
Species : Scenedesmus quadricauda  
Evaluation parameter : Acute (short-term) algae toxicity  
Effective dose : 640 mg/l  
Exposure time : 168 h

Parameter : EC50 ( FATTY ALCOHOL ALKOXYLATE ; CAS No. : 111905-53-4 )  
Species : Algae  
Evaluation parameter : Acute (short-term) algae toxicity  
Effective dose : 0,1 - 1 mg/l  
Exposure time : 72 h

Parameter : EC50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Species : Scenedesmus subspicatus  
Evaluation parameter : Acute (short-term) algae toxicity  
Effective dose : > 100 mg/l  
Exposure time : 72 h

Parameter : EC50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Species : Algae  
Evaluation parameter : Acute (short-term) algae toxicity  
Effective dose : 1800 mg/l  
Exposure time : 168 h

Parameter : EC50 ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Chlorella vulgaris  
Evaluation parameter : Acute (short-term) algae toxicity  
Effective dose : 275 mg/l

Parameter : EC50 ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Selenastrum capricornutum  
Evaluation parameter : Acute (short-term) algae toxicity  
Effective dose : 440 mg/l

Parameter : IC50 ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Scenedesmus subspicatus  
Evaluation parameter : Acute (short-term) algae toxicity

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Effective dose : > 100 mg/l  
Parameter : ErC50 ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Pseudokirchneriella subcapitata  
Evaluation parameter : Acute (short-term) algae toxicity  
Effective dose : > 4800 mg/l  
Exposure time : 72 h  
Method : OECD 201

### Bacteria toxicity

Parameter : Bacteria toxicity ( FATTY ALCOHOL ALKOXYLATE ; CAS No. : 111905-53-4 )  
Species : Bacteria toxicity  
Effective dose : > 1000 mg/l  
Parameter : EC50 ( HYDROXYETHYL CELLULOSE, CATIONIC ; CAS No. : 68610-92-4 )  
Evaluation parameter : Bacteria toxicity  
Effective dose : 2500 mg/l  
Exposure time : 16 h  
Parameter : EC50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Evaluation parameter : Bacteria toxicity  
Effective dose : > 100 mg/l  
Parameter : EC50 ( CITRIC ACID MONOHYDRATE ; CAS No. : 5949-29-1 )  
Species : Pseudomonas putida  
Evaluation parameter : Bacteria toxicity  
Effective dose : > 10000 mg/l  
Exposure time : 16 h  
Parameter : EC0 ( CITRIC ACID MONOHYDRATE ; CAS No. : 5949-29-1 )  
Evaluation parameter : Bacteria toxicity  
Effective dose : 10000 mg/l  
Parameter : EC10 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Species : Pseudomonas putida  
Evaluation parameter : Bacteria toxicity  
Effective dose : 5175 mg/l  
Exposure time : 18 h

### Effects in sewage plants

Parameter : EC50 ( ETHANOL ; CAS No. : 64-17-5 )  
Inoculum : Effects in sewage plants  
Effective dose : 5800 mg/l  
Exposure time : 4 h

## 12.2 Persistence and degradability

### Abiotic degradation

No data available.

### Biodegradation

All active agents are biodegradable at the dilution rates arising in the sewage system. The organic ingredients are biodegradable at the dilution rates arising in the sewage system.

## 12.3 Bioaccumulative potential

No information available.

## 12.4 Mobility in soil

### Known or predicted distribution to environmental compartments

There are no data available on the preparation itself.

### Adsorption/Desorption

## 12.5 Results of PBT and vPvB assessment

No information available.

## 12.6 Other adverse effects

No information available.

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### 12.7 Additional ecotoxicological information

Prevent from flowing into surface water/ground water.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

##### Waste code product

Concentrate/larger quantities: 07 06 04\* other organic solvents.

##### Waste treatment options

###### Appropriate disposal / Product

Dispose according to legislation. Consult the appropriate local waste disposal expert about waste disposal.

###### Appropriate disposal / Package

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

## SECTION 14: Transport information

### 14.1 UN number

UN 1170

### 14.2 UN proper shipping name

#### Land transport (ADR/RID)

ETHANOL, SOLUTION

#### Sea transport (IMDG)

ETHANOL, SOLUTION

#### Air transport (ICAO-TI / IATA-DGR)

ETHANOL, SOLUTION

### 14.3 Transport hazard class(es)

#### Land transport (ADR/RID)

Class(es) : 3  
Classification code : F1  
Hazard identification number (Kemler No.) : 30  
Special provisions : LQ 5 | E 1  
Hazard label(s) : 3

#### Sea transport (IMDG)

Class(es) : 3  
EmS-No. : F-E / S-D  
Special provisions : LQ 5 | E 1  
Hazard label(s) : 3

#### Air transport (ICAO-TI / IATA-DGR)

Class(es) : 3  
Special provisions : E 1  
Hazard label(s) : 3

### 14.4 Packing group

III

### 14.5 Environmental hazards

Land transport (ADR/RID) : No  
Sea transport (IMDG) : No  
Air transport (ICAO-TI / IATA-DGR) : No

### 14.6 Special precautions for user

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None

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

not applicable

## SECTION 15: Regulatory information

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

#### National regulations

##### Restrictions of occupation

According to directive 94/33/EC, juveniles are only allowed to handle this product as long as all effects of dangerous substances are prevented.

### 15.2 Chemical safety assessment

For this mixture a chemical safety assessment has not been carried out.

## SECTION 16: Other information

### 16.1 Indication of changes

03. Hazardous ingredients · 08. Occupational exposure limit values

### 16.2 Abbreviations and acronyms

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimates

CAS = Chemical Abstracts Service

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CMR = Carcinogen, Mutagen or Reproductive toxicant

CO<sub>2</sub> = Carbon dioxide

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EC = European Commission

EC50 = Half maximal effective concentration

EN = European Standard (Norm)

EU = European Union

EUH statement = CLP-specific Hazard statement

EWC = European Waste Catalogue

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

H statement = GHS Hazard statement

IATA = International Air Transport Association ICAO-TI = International Civil Aviation Organization-Technical Instructions

IMDG = International Maritime Dangerous Goods

LC50 = Median lethal concentration

LD50 = Median lethal dose

LogPow = Logarithm of the octanol/water partition coefficient

MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

NOEC/NOEL = No observed effect concentration/level

OECD = Organisation for Economic Co-operation and Development

PBT = Persistent, Bioaccumulative and Toxic

PNEC = Predicted No Effect Concentration

REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006]

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail

RMM = Risk Management Measure

RRN = REACH Registration Number

STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure

SVHC = Substances of Very High Concern

TLV/STEL = Threshold limit value/short-term exposure limit

TLV/TWA = Threshold limit value/time weighted average

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UN = United Nations  
VOC = Volatile Organic Compound  
vPvB = Very Persistent and Very Bioaccumulative

### 16.3 Key literature references and sources for data

None

### 16.4 Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

No information available.

### 16.5 Relevant H- and EUH-phrases (Number and full text)

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

### 16.6 Training advice

None

### 16.7 Additional information

Notice the directions for use on the label.

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The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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