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**Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)****SECTION 1: Identification of the substance/mixture and of the company/undertaking****\* 1.1. Product identifier**

Trade name/designation:

RAVENOL Auto-Shampoo

Article No.:

1360005

UFI:

J6V8-TNPY-QEJV-DS06

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

Use of the substance/mixture:

Reiniger

**1.3. Details of the supplier of the safety data sheet****Supplier (manufacturer/importer/only representative/downstream user/distributor):****Ravensberger Schmierstoffvertrieb GmbH**

Produktsicherheit

Jöllenbecker Str. 2

33824 Werther

Germany

**Telephone:** +49 5203 9719 0**Telefax:** +49 5203 9719 40**E-mail:** kontakt@ravenol.de**Website:** www.ravenol.de**E-mail (competent person):** sdb@ravenol.de**1.4. Emergency telephone number**24 hr. emergency phone number, 24h: +49 700 24 112 112 (Contract ID: RAV) / +1 872 5888271  
(Contract ID: RAV)**SECTION 2: Hazards identification****\* 2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008 [CLP]**

| Hazard classes and hazard categories                | Hazard statements                          | Classification procedure |
|-----------------------------------------------------|--------------------------------------------|--------------------------|
| Respiratory or skin sensitisation<br>(Skin Sens. 1) | H317: May cause an allergic skin reaction. | Calculation method.      |
| Serious eye damage/eye irritation<br>(Eye Irrit. 2) | H319: Causes serious eye irritation.       | Calculation method.      |

**\* 2.2. Label elements****Labelling according to Regulation (EC) No. 1272/2008 [CLP]****Hazard pictograms:****GHS07**

Exclamation mark

**Signal word:** Warning



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### Hazard components for labelling:

2-methyl-2H-isothiazol-3-one; Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts; Alcohols, C12-14, ethoxylated, sulfates, sodium salts; 2-Propylheptanoethoxylat

#### Hazard statements for health hazards

|      |                                      |
|------|--------------------------------------|
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation.       |

Supplemental hazard information: none

#### Precautionary statements

|      |                                |
|------|--------------------------------|
| P102 | Keep out of reach of children. |
|------|--------------------------------|

#### Precautionary statements Prevention

|      |                                                 |
|------|-------------------------------------------------|
| P261 | Avoid breathing vapours and spray.              |
| P280 | Wear protective gloves and eye/face protection. |

#### Precautionary statements Response

|                    |                                                                                                                                  |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------|
| P302 + P352        | IF ON SKIN: Wash with plenty of soap and water.                                                                                  |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P333 + P313        | If skin irritation or rash occurs: Get medical advice/attention.                                                                 |
| P337 + P313        | If eye irritation persists: Get medical advice/attention.                                                                        |

#### Precautionary statements Disposal

|      |                                                                                 |
|------|---------------------------------------------------------------------------------|
| P501 | Dispose of contents/container to an appropriate recycling or disposal facility. |
|------|---------------------------------------------------------------------------------|

### \* 2.3. Other hazards

#### Other adverse effects:

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

## SECTION 3: Composition/information on ingredients

### \* 3.2. Mixtures

#### Additional information:

Regulation (EC) No. 648/2004 [Detergents regulation]:

anionic surfactants < 5 %

non-ionic surfactants < 5 %

#### Hazardous ingredients / Hazardous impurities / Stabilisers:

| Product identifiers                                                | Substance name<br>Classification according to Regulation (EC) No 1272/2008 [CLP]                                                                                                                                                                                                                                                                             | Concentration             |
|--------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| CAS No.: 68411-30-3<br>EC No.: 270-115-0                           | <b>Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts</b><br>Acute Tox. 4 (H302), Aquatic Chronic 3 (H412), Eye Dam. 1 (H318),<br>Skin Irrit. 2 (H315)<br>Danger                                                                                                                                                                                       | 1 - < 2.6<br>weight-%     |
| CAS No.: 68891-38-3<br>EC No.: 500-234-8                           | <b>Alcohols, C12-14, ethoxylated, sulfates, sodium salts</b><br>Aquatic Chronic 3 (H412), Eye Dam. 1 (H318), Eye Irrit. 2 (H319),<br>Skin Irrit. 2 (H315)<br>Danger<br><b>Specific concentration limit (SCL)</b><br>Eye Irrit. 2; H319: 5% ≤ C < 10%<br>Eye Dam. 1; H318: C ≥ 10%                                                                            | 1 - < 1.8<br>weight-%     |
| CAS No.: 160875-66-1                                               | <b>2-Propylheptanoethoxylat</b><br>Acute Tox. 4 (H302), Eye Dam. 1 (H318)<br>Danger<br><b>Specific concentration limit (SCL)</b><br>Eye Irrit. 2; H319: 1% ≤ C < 10%<br>Eye Dam. 1; H318: 10% ≤ C < 100%                                                                                                                                                     | 0 - < 1.3<br>weight-%     |
| CAS No.: 2682-20-4<br>EC No.: 220-239-6<br>Index No.: 613-326-00-9 | <b>2-methyl-2H-isothiazol-3-one</b><br>Acute Tox. 2 (H330), Acute Tox. 3 (H311, H301),<br>Aquatic Acute 1 (H400), Aquatic Chronic 1 (H410), Eye Dam. 1 (H318),<br>Skin Corr. 1B (H314), Skin Sens. 1A (H317)<br>Danger EUH071<br>M-factor (acute): 10 M-factor (chronic): 1<br><b>Specific concentration limit (SCL)</b><br>Skin Sens. 1A; H317: C ≥ 0.0015% | 0 - < 0.00175<br>weight-% |

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



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## SECTION 4: First aid measures

### \* 4.1. Description of first aid measures

#### General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious but breathing normally, place in recovery position and seek medical advice. Do not leave affected person unattended.

#### Following inhalation:

Provide fresh air. Consult a doctor immediately.

#### In case of skin contact:

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. Consult a doctor immediately. May cause an allergic skin reaction.

#### After eye contact:

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Causes serious eye irritation.

#### Following ingestion:

Rinse mouth thoroughly with water. Give nothing to eat or drink. Formation of: Foam! If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

#### Self-protection of the first aider:

Use personal protection equipment. No direct artificial respiration to be given by first aider.

### \* 4.2. Most important symptoms and effects, both acute and delayed

Causes serious eye irritation.

May cause an allergic skin reaction.

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

First Aid, decontamination, treatment of symptoms.

## SECTION 5: Firefighting measures

### \* 5.1. Extinguishing media

#### Suitable extinguishing media:

Co-ordinate fire-fighting measures to the fire surroundings.

Carbon dioxide (CO<sub>2</sub>)

Extinguishing powder

alcohol resistant foam

Use water spray jet to protect personnel and to cool endangered containers.

#### Unsuitable extinguishing media:

Full water jet

### \* 5.2. Special hazards arising from the substance or mixture

During heating or in case of fire, toxic gases is possible.

#### Hazardous combustion products:

Nitrogen oxides (NO<sub>x</sub>), Carbon monoxide, Carbon dioxide (CO<sub>2</sub>)

During heating or in case of fire, toxic gases is possible.

### 5.3. Advice for firefighters

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

### \* 5.4. Additional information

Do not inhale explosion and combustion gases. Move undamaged containers from immediate hazard area if it can be done safely. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

## SECTION 6: Accidental release measures

### \* 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

##### Personal precautions:

Use personal protection equipment. Avoid contact with skin, eyes and clothes. Special danger of slipping by leaking/spilling product.

##### Protective equipment:

Personal protection equipment: see section 8



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**Emergency procedures:**

Remove persons to safety. Provide adequate ventilation.

**6.1.2. For emergency responders****Personal protection equipment:**

Use personal protection equipment.

**6.2. Environmental precautions**

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. Dilute with plenty of water.

\* **6.3. Methods and material for containment and cleaning up****For containment:**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

**For cleaning up:**

Dilute with plenty of water.

**Other information:**

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

**6.4. Reference to other sections**

SECTION 7: Handling and storage

SECTION 8: Exposure controls/personal protection

SECTION 13: Disposal considerations

\* **6.5. Additional information**

Clear spills immediately. Use appropriate container to avoid environmental contamination.

**SECTION 7: Handling and storage**\* **7.1. Precautions for safe handling****Protective measures****Advices on safe handling:**

Wear personal protection equipment (refer to section 8).

When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work. Do not put any product-impregnated cleaning rags into your trouser pockets. Clear spills immediately. Use appropriate container to avoid environmental contamination.

**Fire prevent measures:**

No special fire protection measures are necessary.

**Measures to prevent aerosol and dust generation:**

No special measures are necessary.

**Environmental precautions:**

Shafts and sewers must be protected from entry of the product.

**Advices on general occupational hygiene**

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.

\* **7.2. Conditions for safe storage, including any incompatibilities****Technical measures and storage conditions:**

Keep container tightly closed in a cool, well-ventilated place.

**Packaging materials:**

Keep only in the original container in a cool, well-ventilated place.

**Requirements for storage rooms and vessels:**

No special measures are necessary. Shafts and sewers must be protected from entry of the product. Keep only in the original container in a cool, well-ventilated place.

**Hints on storage assembly:**

TRGS 510

**Storage class (TRGS 510, Germany):** 12 – non-combustible liquids that cannot be assigned to any of the above storage classes

**Further information on storage conditions:**

Keep away from heat. Protect from direct sunlight. Protect against: Frost

Keep container tightly closed.



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### 7.3. Specific end use(s)

#### Recommendation:

Observe technical data sheet.

## SECTION 8: Exposure controls/personal protection

### \* 8.1. Control parameters

#### 8.1.1. Occupational exposure limit values

| Limit value type<br>(country of origin) | Substance name                                                                 | ① Long-term occupational exposure limit value<br>② Short-term occupational exposure limit value<br>③ Instantaneous value<br>④ Monitoring and observation processes<br>⑤ Remark              |
|-----------------------------------------|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MAK (AT)                                | <b>2-methyl-2H-isothiazol-3-one</b><br>CAS No.: 2682-20-4<br>EC No.: 220-239-6 | ① 0.05 mg/m <sup>3</sup><br>⑤ Sh                                                                                                                                                            |
| DFG (DE)                                | <b>2-methyl-2H-isothiazol-3-one</b><br>CAS No.: 2682-20-4<br>EC No.: 220-239-6 | ① 0.2 mg/m <sup>3</sup><br>② 0.4 mg/m <sup>3</sup><br>⑤ einatembare Fraktion (Reaktionsgemisch, bestehend aus 5-Chlor-2-methyl-2H-isothiazol-3-on und 2-Methyl-2H-isothiazol-3-on (3:1)) Sh |

#### 8.1.2. Biological limit values

No data available

#### 8.1.3. DNEL-/PNEC-values

| Substance name                                                                                              | DNEL value             | ① DNEL type<br>② Exposure route                               |
|-------------------------------------------------------------------------------------------------------------|------------------------|---------------------------------------------------------------|
| <b>Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts</b><br>CAS No.: 68411-30-3<br>EC No.: 270-115-0 | 6 mg/m <sup>3</sup>    | ① DNEL worker<br>② Long-term - inhalation, systemic effects   |
| <b>Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts</b><br>CAS No.: 68411-30-3<br>EC No.: 270-115-0 | 4.1 mg/m <sup>3</sup>  | ① DNEL worker<br>② Long-term - inhalation, systemic effects   |
| <b>Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts</b><br>CAS No.: 68411-30-3<br>EC No.: 270-115-0 | 1.01 mg/m <sup>3</sup> | ① DNEL Consumer<br>② Long-term - inhalation, systemic effects |
| <b>Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts</b><br>CAS No.: 68411-30-3<br>EC No.: 270-115-0 | 5.29 mg/kg bw/day      | ① DNEL worker<br>② Long-term - dermal, systemic effects       |
| <b>Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts</b><br>CAS No.: 68411-30-3<br>EC No.: 270-115-0 | 1.2 mg/kg bw/day       | ① DNEL Consumer<br>② Long-term - dermal, systemic effects     |
| <b>Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts</b><br>CAS No.: 68411-30-3<br>EC No.: 270-115-0 | 0.58 mg/kg bw/day      | ① DNEL Consumer<br>② Long-term - oral, systemic effects       |
| <b>Alcohols, C12-14, ethoxylated, sulfates, sodium salts</b><br>CAS No.: 68891-38-3<br>EC No.: 500-234-8    | 175 mg/m <sup>3</sup>  | ① DNEL worker<br>② Long-term - inhalation, systemic effects   |



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| Substance name                                                                                           | DNEL value         | ① DNEL type<br>② Exposure route                         |
|----------------------------------------------------------------------------------------------------------|--------------------|---------------------------------------------------------|
| <b>Alcohols, C12-14, ethoxylated, sulfates, sodium salts</b><br>CAS No.: 68891-38-3<br>EC No.: 500-234-8 | 2,750 mg/kg bw/day | ① DNEL worker<br>② Long-term - dermal, systemic effects |

  

| Substance name                                                                                              | PNEC Value       | ① PNEC type                   |
|-------------------------------------------------------------------------------------------------------------|------------------|-------------------------------|
| <b>Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts</b><br>CAS No.: 68411-30-3<br>EC No.: 270-115-0 | 0.268 mg/L       | ① PNEC aquatic, freshwater    |
| <b>Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts</b><br>CAS No.: 68411-30-3<br>EC No.: 270-115-0 | 0.0268 mg/L      | ① PNEC aquatic, marine water  |
| <b>Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts</b><br>CAS No.: 68411-30-3<br>EC No.: 270-115-0 | 7 µg/L           | ① PNEC sewage treatment plant |
| <b>Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts</b><br>CAS No.: 68411-30-3<br>EC No.: 270-115-0 | 8.1 mg/kg bw/day | ① PNEC sediment, freshwater   |
| <b>Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts</b><br>CAS No.: 68411-30-3<br>EC No.: 270-115-0 | 9.1 mg/kg bw/day | ① PNEC sediment, marine water |
| <b>Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts</b><br>CAS No.: 68411-30-3<br>EC No.: 270-115-0 | 35 mg/kg bw/day  | ① PNEC soil                   |

## \* 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

See section 7. No additional measures necessary.

### 8.2.2. Personal protection equipment



#### Eye/face protection:

During transfer: Eye glasses with side protection  
DIN-/EN-Norms EN 166

#### Skin protection:

Hand protection  
Suitable material: NBR (Nitrile rubber), PVC (polyvinyl chloride)  
Thickness of the glove material:  $\geq 0,4$  mm  
Breakthrough time: 480 min  
Breakthrough times and swelling properties of the material must be taken into consideration. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.  
Tested protective gloves must be worn: EN ISO 374  
Suitable protective clothing: Protective clothing

#### Respiratory protection:

Usually no personal respiratory protection necessary.

### 8.2.3. Environmental exposure controls

See section 7. No additional measures necessary.

## 8.3. Additional information

See section 7. No additional measures necessary.



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## SECTION 9: Physical and chemical properties

### \* 9.1. Information on basic physical and chemical properties

#### Appearance

Physical state: Liquid

Colour: yellow

Odour: characteristic

#### Safety relevant basis data

| Parameter                                    | Value                  | at °C | ① Method<br>② Remark |
|----------------------------------------------|------------------------|-------|----------------------|
| pH                                           | 8.1                    |       |                      |
| Melting point                                | No data available      |       |                      |
| Freezing point                               | No data available      |       |                      |
| Initial boiling point and boiling range      | 100 °C                 |       |                      |
| Decomposition temperature                    | not applicable         |       |                      |
| Flash point                                  | not applicable         |       |                      |
| Evaporation rate                             | not applicable         |       |                      |
| Auto-ignition temperature                    | No data available      |       |                      |
| Upper/lower flammability or explosive limits | No data available      |       |                      |
| Vapour pressure                              | 23 hPa                 | 20 °C |                      |
| Vapour density                               | not applicable         |       |                      |
| Density                                      | 1.02 g/cm <sup>3</sup> |       |                      |
| Relative density                             | not applicable         |       |                      |
| Bulk density                                 | not applicable         |       |                      |
| Water solubility                             | completely miscible    |       |                      |
| Partition coefficient: n-octanol/water       | not applicable         |       |                      |
| Dynamic viscosity                            | No data available      | 40 °C |                      |
| Kinematic viscosity                          | No data available      | 40 °C |                      |

### 9.2. Other information

Not applicable

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No known hazardous reactions.

### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

### 10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

### \* 10.4. Conditions to avoid

To avoid thermal decomposition do not overheat.

### 10.5. Incompatible materials

Oxidising agent, strong

### \* 10.6. Hazardous decomposition products

Hazardous combustion products: Carbon monoxide, Carbon dioxide (CO<sub>2</sub>), Nitrogen oxides (NO<sub>x</sub>), During heating or in case of fire, toxic gases is possible.

#### Further information

No information available.

## SECTION 11: Toxicological information

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

Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts CAS No.: 68411-30-3 EC No.: 270-115-0

LD<sub>50</sub> oral: 1,080 mg/kg (Rat)

LD<sub>50</sub> dermal: >2,000 mg/kg (Rat)



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|                                                                                                                                 |                      |                   |
|---------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------|
| <b>Alcohols, C12-14, ethoxylated, sulfates, sodium salts</b>                                                                    | CAS No.: 68891-38-3  | EC No.: 500-234-8 |
| <b>LD<sub>50</sub> oral:</b> >540 mg/kg (rat) OECD Guideline 401 (Acute Oral Toxicity)                                          |                      |                   |
| <b>LD<sub>50</sub> dermal:</b> >2,000 mg/kg (Rat)                                                                               |                      |                   |
| <b>2-Propylheptanoethoxylat</b>                                                                                                 | CAS No.: 160875-66-1 |                   |
| <b>LD<sub>50</sub> oral:</b> 700 - 1,700 mg/kg (Rat)                                                                            |                      |                   |
| <b>LD<sub>50</sub> dermal:</b> >2,000 mg/kg (rat) OECD Guideline 402 (Acute Dermal Toxicity)                                    |                      |                   |
| <b>LC<sub>50</sub> Acute inhalation toxicity (vapour):</b> >26.76 mg/L 7 h (rat) OECD Guideline 403 (Acute Inhalation Toxicity) |                      |                   |
| <b>LC<sub>50</sub> Acute inhalation toxicity (dust/mist):</b> 2.41 mg/L 4 h (rat)                                               |                      |                   |
| <b>2-methyl-2H-isothiazol-3-one</b>                                                                                             | CAS No.: 2682-20-4   | EC No.: 220-239-6 |
| <b>LD<sub>50</sub> oral:</b> 120 mg/kg (rat) EPA OPPTS 870.1100 (Acute Oral Toxicity)                                           |                      |                   |
| <b>LD<sub>50</sub> dermal:</b> 242 mg/kg (rat)                                                                                  |                      |                   |
| <b>LC<sub>50</sub> Acute inhalation toxicity (dust/mist):</b> 0.1 mg/L 4 h (rat) OECD Guideline 403 (Acute Inhalation Toxicity) |                      |                   |

**Acute oral toxicity:**

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

**Acute dermal toxicity:**

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

**Acute inhalation toxicity:**

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

**Skin corrosion/irritation:**

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

**Serious eye damage/irritation:**

Causes serious eye irritation.

**Respiratory or skin sensitisation:**

May cause an allergic skin reaction.

**Germ cell mutagenicity:**

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

**Carcinogenicity:**

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

**Reproductive toxicity:**

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

**STOT-single exposure:**

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

**STOT-repeated exposure:**

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

**Aspiration hazard:**

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

**Additional information:**

No data available

\* **11.2. Information on other hazards**

**Endocrine disrupting properties:**

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

**Other information:**

No information available.

**SECTION 12: Ecological information**

\* **12.1. Toxicity**

|                                                                                        |                     |                   |
|----------------------------------------------------------------------------------------|---------------------|-------------------|
| <b>Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts</b>                        | CAS No.: 68411-30-3 | EC No.: 270-115-0 |
| <b>EC<sub>50</sub>:</b> 1 - 10 mg/L 2 d (crustaceans, Daphnia magna (Big water flea))  |                     |                   |
| <b>EC<sub>50</sub>:</b> 10 - 100 mg/L 3 d (Algae/water plant, Scenedesmus subspicatus) |                     |                   |
| <b>LC<sub>50</sub>:</b> 1 - 10 mg/L 4 d (fish, Cyprinus carpio (Common Carp))          |                     |                   |
| <b>NOEC:</b> >0.1 - 1 mg/L 28 d (fish, Lepomis macrochirus (Bluegill))                 |                     |                   |



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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Alcohols, C12-14, ethoxylated, sulfates, sodium salts</b> CAS No.: 68891-38-3 EC No.: 500-234-8                                                                 |
| <b>LC<sub>50</sub></b> : 7.1 mg/L 4 d (fish)                                                                                                                       |
| <b>LC<sub>50</sub></b> : 7.1 mg/L 4 d (fish, Danio rerio (previous name: Brachydanio rerio))                                                                       |
| <b>LC<sub>50</sub></b> : 1.17 mg/L 4 d (crustaceans, Daphnia magna) OECD Guideline 211 (Daphnia magna Reproduction Test)                                           |
| <b>EC<sub>50</sub></b> : 7.2 – 7.4 mg/L 2 d (crustaceans)                                                                                                          |
| <b>EC<sub>50</sub></b> : 27 mg/L 3 d (Algae/water plant)                                                                                                           |
| <b>EC<sub>50</sub></b> : 27.7 mg/L 3 d (Algae/water plant, Desmodesmus subspicatus (previous name: Scenedesmus subspicatus))                                       |
| <b>EC<sub>50</sub></b> : 7.4 mg/L 2 d (crustaceans, Daphnia magna)                                                                                                 |
| <b>NOEC</b> : 0.93 mg/L -∞ h (Algae/water plant)                                                                                                                   |
| <b>NOEC</b> : 0.95 mg/L 3 d (Algae/water plant, Desmodesmus subspicatus (previous name: Scenedesmus subspicatus))                                                  |
| <b>NOEC</b> : 0.14 mg/L 28 d (fish, Oncorhynchus mykiss (previous name: Salmo gairdneri))                                                                          |
| <b>NOEC</b> : 0.27 mg/L 21 d (crustaceans, Daphnia magna) OECD Guideline 211 (Daphnia magna Reproduction Test)                                                     |
| <b>2-Propylheptanoethoxylat</b> CAS No.: 160875-66-1                                                                                                               |
| <b>LC<sub>50</sub></b> : 1,000 mg/L 2 d (crustaceans, Gammarus pulex)                                                                                              |
| <b>LC<sub>50</sub></b> : 4,555 mg/L 4 d (fish, Pimephales promelas) OECD Guideline 203 (Fish, Acute Toxicity Test)                                                 |
| <b>EC<sub>50</sub></b> : >100 mg/L 3 d (Algae/water plant, Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)) EU Method C.3 (Algal Inhibition test) |
| <b>EC<sub>50</sub></b> : 42.4 mg/L 4 d (crustaceans, Americamysis bahia (previous name: Mysidopsis bahia)) EPA OPPTS 850.1035 (Mysid Acute Toxicity Test)          |
| <b>EC<sub>50</sub></b> : 69.2 mg/L 2 d (crustaceans, Americamysis bahia (previous name: Mysidopsis bahia)) EPA OPPTS 850.1035 (Mysid Acute Toxicity Test)          |
| <b>EC<sub>50</sub></b> : 9,170 mg/L 2 d (Algae/water plant, Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)) |
| <b>EC<sub>50</sub></b> : 313.8 mg/L 4 d (Algae/water plant, Skeletonema costatum)                                                                                  |
| <b>NOEC</b> : 118.4 mg/L 4 d (Algae/water plant, Skeletonema costatum)                                                                                             |
| <b>NOEC</b> : 126 mg/L 4 d (fish, Leuciscus idus) German Industrial Standard DIN 38412, part 15                                                                    |
| <b>NOEC</b> : 1,150 mg/L 2 d (Algae/water plant, Chlorella pyrenoidosa)                                                                                            |
| <b>NOEC</b> : 3.13 mg/L 3 d (Algae/water plant, Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)) EU Method C.3 (Algal Inhibition test)            |
| <b>NOEC</b> : 3.19 mg/L 21 d (crustaceans, Daphnia magna) OECD Guideline 211 (Daphnia magna Reproduction Test)                                                     |
| <b>LOEC</b> : 6.25 mg/L 3 d (Algae/water plant, Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)) EU Method C.3 (Algal Inhibition test)            |
| <b>LOEC</b> : 4.85 mg/L 21 d (crustaceans, Daphnia magna) OECD Guideline 211 (Daphnia magna Reproduction Test)                                                     |
| <b>2-methyl-2H-isothiazol-3-one</b> CAS No.: 2682-20-4 EC No.: 220-239-6                                                                                           |
| <b>LC<sub>50</sub></b> : 6.2 mg/L 2 d (fish, Oncorhynchus mykiss (previous name: Salmo gairdneri))                                                                 |
| <b>LC<sub>50</sub></b> : 6 mg/L 3 d (fish, Oncorhynchus mykiss (previous name: Salmo gairdneri))                                                                   |
| <b>LC<sub>50</sub></b> : 4.77 mg/L 4 d (fish, Oncorhynchus mykiss (previous name: Salmo gairdneri))                                                                |
| <b>LC<sub>50</sub></b> : 0.934 mg/L 2 d (crustaceans, Daphnia magna)                                                                                               |
| <b>LC<sub>50</sub></b> : 1.81 mg/L 4 d (crustaceans, Americamysis bahia (previous name: Mysidopsis bahia)) EPA OPPTS 850.1035 (Mysid Acute Toxicity Test)          |
| <b>EC<sub>50</sub></b> : 0.063 mg/L 4 d (Algae/water plant, Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)) |
| <b>EC<sub>50</sub></b> : 1.6 mg/L 2 d (crustaceans, Daphnia magna)                                                                                                 |
| <b>NOEC</b> : 0.02 mg/L 1 d (Algae/water plant, Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum))             |
| <b>NOEC</b> : 0.01 mg/L 4 d (Algae/water plant, Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum))             |
| <b>NOEC</b> : 0.9 mg/L 1 d (crustaceans, Daphnia magna)                                                                                                            |
| <b>NOEC</b> : 0.9 mg/L 2 d (crustaceans, Daphnia magna)                                                                                                            |
| <b>NOEC</b> : 1.3 mg/L 4 d (crustaceans, Americamysis bahia (previous name: Mysidopsis bahia)) EPA OPPTS 850.1035 (Mysid Acute Toxicity Test)                      |
| <b>NOEC</b> : 0.044 mg/L 21 d (crustaceans, Daphnia magna)                                                                                                         |
| <b>LOEC</b> : 0.089 mg/L 21 d (crustaceans, Daphnia magna)                                                                                                         |

**Assessment/classification:**

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



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**Additional ecotoxicological information:**

Do not allow uncontrolled discharge of product into the environment.

\* **12.2. Persistence and degradability**

No data available

\* **12.3. Bioaccumulative potential**

|                                                              |                                   |                   |
|--------------------------------------------------------------|-----------------------------------|-------------------|
| <b>Alcohols, C12-14, ethoxylated, sulfates, sodium salts</b> | CAS No.: 68891-38-3               | EC No.: 500-234-8 |
| <b>Log K<sub>OW</sub>:</b>                                   | 0.3                               |                   |
| <b>2-Propylheptanoethoxylat</b>                              | CAS No.: 160875-66-1              |                   |
| <b>Log K<sub>OW</sub>:</b>                                   | 1.62                              |                   |
| <b>Bioconcentration factor (BCF):</b>                        | 0.88                              |                   |
| <b>2-methyl-2H-isothiazol-3-one</b>                          | CAS No.: 2682-20-4                | EC No.: 220-239-6 |
| <b>Log K<sub>OW</sub>:</b>                                   | 0.71                              |                   |
| <b>Bioconcentration factor (BCF):</b>                        | 48.1 Species: Lepomis macrochirus |                   |

**Partition coefficient: n-octanol/water:**

not applicable

**Accumulation / Evaluation:**

No information available.

**12.4. Mobility in soil**

No information available.

\* **12.5. Results of PBT and vPvB assessment**

|                                                                 |                                                                          |                   |
|-----------------------------------------------------------------|--------------------------------------------------------------------------|-------------------|
| <b>Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts</b> | CAS No.: 68411-30-3                                                      | EC No.: 270-115-0 |
| <b>Results of PBT and vPvB assessment:</b>                      | This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII. |                   |
| <b>Alcohols, C12-14, ethoxylated, sulfates, sodium salts</b>    | CAS No.: 68891-38-3                                                      | EC No.: 500-234-8 |
| <b>Results of PBT and vPvB assessment:</b>                      | This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII. |                   |
| <b>2-Propylheptanoethoxylat</b>                                 | CAS No.: 160875-66-1                                                     |                   |
| <b>Results of PBT and vPvB assessment:</b>                      | This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII. |                   |
| <b>2-methyl-2H-isothiazol-3-one</b>                             | CAS No.: 2682-20-4                                                       | EC No.: 220-239-6 |
| <b>Results of PBT and vPvB assessment:</b>                      | This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII. |                   |

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

\* **12.7. Other adverse effects**

No information available.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

Dispose of waste according to applicable legislation.

**Waste treatment options**

**Appropriate disposal / Product:**

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

**Appropriate disposal / Package:**

Non-contaminated packages may be recycled.

**13.2. Additional information**

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.



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## SECTION 14: Transport information

| Land transport (ADR/RID)                                   | Inland waterway craft (ADN)                                | Sea transport (IMDG)                                       | Air transport (ICAO-TI / IATA-DGR)                         |
|------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------------|
| <b>14.1. UN number or ID number</b>                        |                                                            |                                                            |                                                            |
| No dangerous good in sense of these transport regulations. | No dangerous good in sense of these transport regulations. | No dangerous good in sense of these transport regulations. | No dangerous good in sense of these transport regulations. |
| <b>14.2. UN proper shipping name</b>                       |                                                            |                                                            |                                                            |
| No dangerous good in sense of these transport regulations. | No dangerous good in sense of these transport regulations. | No dangerous good in sense of these transport regulations. | No dangerous good in sense of these transport regulations. |
| <b>14.3. Transport hazard class(es)</b>                    |                                                            |                                                            |                                                            |
| not relevant                                               | not relevant                                               | not relevant                                               | not relevant                                               |
| <b>14.4. Packing group</b>                                 |                                                            |                                                            |                                                            |
| not relevant                                               | not relevant                                               | not relevant                                               | not relevant                                               |
| <b>14.5. Environmental hazards</b>                         |                                                            |                                                            |                                                            |
| not relevant                                               | not relevant                                               | not relevant                                               | not relevant                                               |
| <b>14.6. Special precautions for user</b>                  |                                                            |                                                            |                                                            |
| not relevant                                               | not relevant                                               | not relevant                                               | not relevant                                               |

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

No transport as bulk according to IBC Code.

## SECTION 15: Regulatory information

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

#### 15.1.1. EU legislation

##### Other regulations (EU):

This product is not assigned to a hazard category.  
 Regulation (EC) No. 648/2004 [Detergents regulation]:  
 anionic surfactants < 5 %  
 non-ionic surfactants < 5 %

#### 15.1.2. National regulations

##### [DE] National regulations

##### Restrictions of occupation

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

##### Störfallverordnung (12. BImSchV)

##### for substances contained in the product:

This product is not assigned to a hazard category.

##### for substances possibly developing during an incident:

This product is not assigned to a hazard category.

##### Technische Anleitung zur Reinhaltung der Luft (TA-Luft)

##### Remark:

To follow: 5.2.5

##### Water hazard class

##### WGK:

1 - slightly hazardous to water

##### Source:

Self-classification (mixture; calculation rule).

##### Technische Regeln für Gefahrstoffe

TRGS 500

TRGS 510

TRGS 900

##### Berufsgenossenschaftliche Vorschriften (DGUV-Vorschriften)

Berufsgenossenschaftliche Informationen (DGUV-Informationen) 868

Berufsgenossenschaftliche Regeln (DGUV-Regeln) 189, 190, 192, 195



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## [CH] National regulations

### Other regulations, restrictions and prohibition regulations

Mengenschwelle (Schweiz - StFV)  
 Gefahrencode  
 Brandverhütung, BVD (Schweiz)  
 Störfallverordnung (StFV)



## [SK] National regulations

### Other regulations, restrictions and prohibition regulations

Zákon č. 67/2010 Z.z., o podmienkach uvedenia chemických látok a chemických zmesí na trh a o zmene a doplnení niektorých zákonov (chemický zákon).  
 Zákon č. 124/2006 Z. z. o bezpečnosti a ochrane zdravia pri práci a o zmene a doplnení niektorých zákonov.  
 Zákon NR SR č. 355/2007 Z.z., o ochrane, podpore a rozvoji verejného zdravia a o zmene a doplnení niektorých zákonov, v znení neskorších predpisov.  
 Nariadenie vlády SR 471/2011 Z.z., ktorým sa mení nariadenie vlády Slovenskej republiky č. 355/2006 Z. z. o ochrane zamestnancov pred rizikami súvisiacimi s expozíciou chemickým faktorom pri práci, Príloha č.1.  
 Zákon č. 79/2015 Z.z. o odpadoch v znení neskorších predpisov.  
 Vyhláška MV SR č. 96/2004 Z.z., ktorou sa ustanovujú zásady protipožiarnej bezpečnosti pri manipulácii a skladovaní horľavých kvapalín, ťažkých vykurovacích olejov a rastlinných a živočíšnych tukov a olejov.  
 Zákon NR SR č. 137/2010 Z.z. o ovzduší v znení neskorších predpisov.  
 Zákon č. 319/2013 Z.z. o pôsobnosti orgánov štátnej správy pre sprístupňovanie biocídnych výrobkov na trh a ich používanie a o zmene a doplnení niektorých zákonov (biocídny zákon).

## 15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

### \* 16.1. Indication of changes

|       |                                                                            |
|-------|----------------------------------------------------------------------------|
| 1.1.  | Product identifier                                                         |
| 2.1.  | Classification of the substance or mixture                                 |
| 2.2.  | Label elements                                                             |
| 2.3.  | Other hazards                                                              |
| 3.2.  | Mixtures                                                                   |
| 4.1.  | Description of first aid measures                                          |
| 4.2.  | Most important symptoms and effects, both acute and delayed                |
| 4.3.  | Indication of any immediate medical attention and special treatment needed |
| 5.1.  | Extinguishing media                                                        |
| 5.2.  | Special hazards arising from the substance or mixture                      |
| 5.4.  | Additional information                                                     |
| 6.1.  | Personal precautions, protective equipment and emergency procedures        |
| 6.3.  | Methods and material for containment and cleaning up                       |
| 6.5.  | Additional information                                                     |
| 7.1.  | Precautions for safe handling                                              |
| 7.2.  | Conditions for safe storage, including any incompatibilities               |
| 8.1.  | Control parameters                                                         |
| 8.2.  | Exposure controls                                                          |
| 9.1.  | Information on basic physical and chemical properties                      |
| 10.4. | Conditions to avoid                                                        |
| 10.6. | Hazardous decomposition products                                           |
| 11.1. | Information on hazard classes as defined in Regulation (EC) No 1272/2008   |
| 11.2. | Information on other hazards                                               |
| 12.1. | Toxicity                                                                   |
| 12.2. | Persistence and degradability                                              |



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|       |                                                                                                        |
|-------|--------------------------------------------------------------------------------------------------------|
| 12.3. | Bioaccumulative potential                                                                              |
| 12.5. | Results of PBT and vPvB assessment                                                                     |
| 12.7. | Other adverse effects                                                                                  |
| 15.1. | Safety, health and environmental regulations/legislation specific for the substance or mixture         |
| 16.1. | Indication of changes                                                                                  |
| 16.2. | Abbreviations and acronyms                                                                             |
| 16.3. | Key literature references and sources for data                                                         |
| 16.4. | Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP] |
| 16.5. | List of relevant hazard statements and/or precautionary statements from sections 2 to 15               |

\* **16.2. Abbreviations and acronyms**

|                  |                                                                                                 |
|------------------|-------------------------------------------------------------------------------------------------|
| ADN              | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
| ADR              | European Agreement concerning the International Carriage of Dangerous Goods by Road             |
| BCF              | Bioconcentration Factor                                                                         |
| CAS              | Chemical Abstracts Service                                                                      |
| CLP              | Classification, Labelling and Packaging                                                         |
| DIN              | German Institute for Standardization / German Industrial Standard                               |
| DNEL             | derived no-effect level                                                                         |
| EC <sub>50</sub> | Effective Concentration 50%                                                                     |
| IBC              | Intermediate Bulk Container                                                                     |
| ICAO             | International Civil Aviation Organization                                                       |
| IMDG             | International Maritime Dangerous Goods                                                          |
| IMO              | International Maritime Organization                                                             |
| KG               | body weight                                                                                     |
| LC <sub>50</sub> | Lethal (fatal) Concentration 50%                                                                |
| LD <sub>50</sub> | Lethal (fatal) Dose 50%                                                                         |
| MAK              | Maximum concentration in the workplace air (CH)                                                 |
| NFPA             | National Fire Protection Association                                                            |
| NOEC             | No Observed Effect Concentration                                                                |
| OECD             | Organisation for Economic Cooperation and Development                                           |
| PBT              | persistent and bioaccumulative and toxic                                                        |
| PNEC             | Predicted No Effect Concentration                                                               |
| REACH            | Registration, Evaluation and Authorization of Chemicals                                         |
| RID              | Dangerous goods regulations for transport by rail                                               |
| SCL              | Specific concentration limit                                                                    |
| TRGS             | Technische Regeln für Gefahrstoffe                                                              |
| UN               | United Nations                                                                                  |

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

See overview table at [www.euphrac.eu](http://www.euphrac.eu)

\* **16.3. Key literature references and sources for data**

EC 1907/2006 - REACH Regulation  
 1272/2008 EC - Regulation on classification, labeling and packaging of substances and mixtures, and amending Directives 67/548/EEC and 1999/45/EC and Regulation (EC) No 1907/2006  
 Regulation (EC) No 1907/2006 (REACH), Annex II  
 European Chemicals Agency (ECHA), C & L classification and labeling inventory  
 European Chemicals Agency (ECHA), ECHA CHEM Registered substances  
 OECD The Global Portal to Information on Chemical Substances (ChemPortal)  
 Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA): GESTIS substance database and International limit values for chemical substances  
 Federal Environment Agency, Section IV 2.4: Documentation and Information Centre substances hazardous to water Rigoletto (catalog substances hazardous to water)

| Substance name                                                                                           | Type                                                                                                                     | source of supply                                                                               |
|----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| <b>Alcohols, C12-14, ethoxylated, sulfates, sodium salts</b><br>CAS No.: 68891-38-3<br>EC No.: 500-234-8 | Classification of the substance or mixture; LD <sub>50</sub> oral; LC <sub>50</sub> ; EC <sub>50</sub> ; NOEC            | Source: European Chemicals Agency, <a href="http://echa.europa.eu/">http://echa.europa.eu/</a> |
| <b>2-Propylheptanoethoxylat</b><br>CAS No.: 160875-66-1                                                  | LD <sub>50</sub> dermal; LC <sub>50</sub> Acute inhalation toxicity (vapour); LC <sub>50</sub> Acute inhalation toxicity | Source: European Chemicals Agency, <a href="http://echa.europa.eu/">http://echa.europa.eu/</a> |



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| Substance name                                                                 | Type                                                                                                                                                        | source of supply                                                                                  |
|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
|                                                                                | (dust/mist); LC <sub>50</sub> ; EC <sub>50</sub> ; NOEC; LOEC                                                                                               |                                                                                                   |
| <b>2-methyl-2H-isothiazol-3-one</b><br>CAS No.: 2682-20-4<br>EC No.: 220-239-6 | LD <sub>50</sub> oral; LD <sub>50</sub> dermal; LC <sub>50</sub><br>Acute inhalation toxicity (dust/mist); LC <sub>50</sub> ; EC <sub>50</sub> ; NOEC; LOEC | Source: European Chemicals Agency,<br><a href="http://echa.europa.eu/">http://echa.europa.eu/</a> |

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

| Hazard classes and hazard categories                         | Hazard statements                          | Classification procedure |
|--------------------------------------------------------------|--------------------------------------------|--------------------------|
| Respiratory or skin sensitisation<br>( <i>Skin Sens. 1</i> ) | H317: May cause an allergic skin reaction. | Calculation method.      |
| Serious eye damage/eye irritation<br>( <i>Eye Irrit. 2</i> ) | H319: Causes serious eye irritation.       | Calculation method.      |

\* **16.5. List of relevant hazard statements and/or precautionary statements from sections 2 to 15**

| Hazard statements               |                                                       |
|---------------------------------|-------------------------------------------------------|
| H301                            | Toxic if swallowed.                                   |
| H302                            | Harmful if swallowed.                                 |
| H311                            | Toxic in contact with skin.                           |
| H314                            | Causes severe skin burns and eye damage.              |
| H315                            | Causes skin irritation.                               |
| H317                            | May cause an allergic skin reaction.                  |
| H318                            | Causes serious eye damage.                            |
| H319                            | Causes serious eye irritation.                        |
| H330                            | Fatal if inhaled.                                     |
| H400                            | Very toxic to aquatic life.                           |
| H410                            | Very toxic to aquatic life with long lasting effects. |
| H412                            | Harmful to aquatic life with long lasting effects.    |
| Supplemental hazard information |                                                       |
| EUH071                          | Corrosive to the respiratory tract.                   |

**16.6. Training advice**

No data available

**16.7. Additional information**

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.

\* Data changed compared with the previous version.