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Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
Revision date / version: 21.08.2015 / 0003  
Replacing version dated / version: 06.01.2014 / 0002  
Valid from: 21.08.2015  
PDF print date: 23.09.2016  
Coolant Ready Mix RAF11 200 L  
Art.: 8823

## Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

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

#### 1.1 Product identifier

**Coolant Ready Mix RAF11 200 L**  
**Art.: 8823**

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

**Relevant identified uses of the substance or mixture:**

Anti-freeze

**Uses advised against:**

No information available at present.

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

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LIQUI MOLY GmbH, Jerg-Wieland-Str. 4, 89081 Ulm-Lehr, Germany  
Phone:(+49) 0731-1420-0, Fax:(+49) 0731-1420-88

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

#### 1.4 Emergency telephone number

**Emergency information services / official advisory body:**

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**Telephone number of the company in case of emergencies:**

+49 (0) 700 / 24 112 112 (LMR)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

**Classification according to Regulation (EC) 1272/2008 (CLP)**

| Hazard class | Hazard category | Hazard statement  |
|--------------|-----------------|---|
| STOT RE      | 2               | H373-May cause damage to organs through prolonged or repeated exposure. |

#### 2.2 Label elements

**Labeling according to Regulation (EC) 1272/2008 (CLP)**



Warning

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H373-May cause damage to organs through prolonged or repeated exposure.

P101-If medical advice is needed, have product container or label at hand. P102-Keep out of reach of children.  
 P260-Do not breathe vapours or spray.  
 P314-Get medical advice/attention if you feel unwell.  
 P501-Dispose of contents/container safely.

Ethanediol

### 2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

## SECTION 3: Composition/information on ingredients

### 3.1 Substance

n.a.

### 3.2 Mixture

| Ethanediol  | Substance for which an EU exposure limit value applies. |
|---|---|
| Registration number (REACH)                                 | 01-2119456816-28-XXXX                                   |
| Index   | 603-027-00-1  |
| EINECS, ELINCS, NLP   | 203-473-3   |
| CAS   | 107-21-1  |
| content %   | 20-40   |
| Classification according to Regulation (EC) 1272/2008 (CLP) | Acute Tox. 4, H302<br>STOT RE 2, H373                   |

| Disodium tetraborate pentahydrate                           | SVHC-substance                         |
|---|--|
| Registration number (REACH)                                 | 01-2119490790-32-XXXX                  |
| Index   | 005-011-02-9                           |
| EINECS, ELINCS, NLP   | 215-540-4                              |
| CAS   | 12179-04-3                             |
| content %   | 0,1-<0,5                               |
| Classification according to Regulation (EC) 1272/2008 (CLP) | Eye Irrit. 2, H319<br>Repr. 1B, H360FD |

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.

The substances named in this section are given with their actual, appropriate classification!

For substances that are listed in appendix VI, table 3.1/3.2 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### Inhalation

Remove person from danger area.

Supply person with fresh air and consult doctor according to symptoms.

If the person is unconscious, place in a stable side position and consult a doctor.

#### Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

#### Eye contact

Remove contact lenses.

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Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

### **Ingestion**

Rinse the mouth thoroughly with water.

Do not induce vomiting - give copious water to drink. Consult doctor immediately.

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

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.

Irritation of the eyes

Skin resorption

Effects/damages the central nervous system

Unconsciousness

Kidney damage

In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

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

Symptomatic treatment.

## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

#### **Suitable extinguishing media**

CO<sub>2</sub>

Extinction powder

Water jet spray

Large fire:

Water jet spray

Alcohol resistant foam

#### **Unsuitable extinguishing media**

None known

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

In case of fire the following can develop:

Oxides of carbon

Toxic gases

### **5.3 Advice for firefighters**

In case of fire and/or explosion do not breathe fumes.

Protective respirator with independent air supply.

According to size of fire

Full protection, if necessary.

Cool container at risk with water.

Dispose of contaminated extinction water according to official regulations.

## **SECTION 6: Accidental release measures**

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

Remove possible causes of ignition - do not smoke.

Ensure sufficient supply of air.

Avoid contact with eyes or skin.

If applicable, caution - risk of slipping.

### **6.2 Environmental precautions**

If leakage occurs, dam up.

Resolve leaks if this possible without risk.

Prevent surface and ground-water infiltration, as well as ground penetration.

Prevent from entering drainage system.

If accidental entry into drainage system occurs, inform responsible authorities.

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

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth) and dispose of according to Section 13.

### **6.4 Reference to other sections**

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

## **SECTION 7: Handling and storage**

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In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

## 7.1 Precautions for safe handling

### 7.1.1 General recommendations

Ensure good ventilation.  
 Avoid aerosol formation.  
 Keep away from sources of ignition - Do not smoke.  
 Avoid contact with eyes or skin.  
 Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.  
 Observe directions on label and instructions for use.  
 Use working methods according to operating instructions.

### 7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.  
 Wash hands before breaks and at end of work.  
 Keep away from food, drink and animal feedingstuffs.  
 Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

## 7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.  
 Not to be stored in gangways or stair wells.  
 Store product closed and only in original packing.  
 Protect from direct sunlight and warming.  
 Under all circumstances prevent penetration into the soil.

## 7.3 Specific end use(s)

No information available at present.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

| Chemical Name   | Ethanediol  | Content %:20-40 |
|---|---|-----------------|
| WEL-TWA: 10 mg/m <sup>3</sup> (particulate), 52 mg/m <sup>3</sup> (vapour) (WEL), 20 ppm (52 mg/m <sup>3</sup> ) (EU) | WEL-STEL: 104 mg/m <sup>3</sup> (vapour) (WEL), 40 ppm (104 mg/m <sup>3</sup> ) (EU)  | ---             |
| Monitoring procedures:  | <ul style="list-style-type: none"> <li>- Compur - KITA-232 SA (502 342)</li> <li>- Compur - KITA-232 SB (550 267)</li> <li>- Draeger - Ethylene Glycol 10 (5) (81 01 351)</li> <li>- NIOSH 5523 (Glycols) - 1996</li> <li>- OSHA PV2024 (Ethylene glycol) - 1999 - EU project BC/CEN/ENTR/000/2002-16 card</li> <li>- 11-2 (2004)</li> <li>- Draeger - Alcohol 100/a (CH 29 701)</li> </ul> |                 |
| BMGV: ---   | Other information: Sk (particulate, vapour)   |                 |

| Chemical Name                | Disodium tetraborate pentahydrate | Content %:0,1-<br><0,5 |
|------------------------------|-----------------------------------|------------------------|
| WEL-TWA: 1 mg/m <sup>3</sup> | WEL-STEL: ---                     | ---                    |
| Monitoring procedures:       | ---                               |                        |
| BMGV: ---                    | Other information: ---            |                        |

GB WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.

\*\* = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.

| Ethanediol          |  |                  |            |       |      |      |
|---------------------|--|------------------|------------|-------|------|------|
| Area of application | Exposure route / Environmental compartment | Effect on health | Descriptor | Value | Unit | Note |
|                     |  |                  |            |       |      |      |

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|            |   |                             |      |       |                   |  |
|------------|---|-----------------------------|------|-------|-------------------|--|
|            | Environment - freshwater                      |                             | PNEC | 10    | mg/l              |  |
|            | Environment - marine                          |                             | PNEC | 1     | mg/l              |  |
|            | Environment - sporadic (intermittent) release |                             | PNEC | 10    | mg/l              |  |
|            | Environment - sewage treatment plant          |                             | PNEC | 199,5 | mg/l              |  |
|            | Environment - sediment, freshwater            |                             | PNEC | 20,9  | mg/kg             |  |
|            | Environment - soil                            |                             | PNEC | 1,53  | mg/kg             |  |
| Industrial | Human - inhalation                            | Long term, local effects    | DNEL | 35    | mg/m <sup>3</sup> |  |
| Industrial | Human - dermal                                | Long term, systemic effects | DNEL | 106   | mg/kg bw/d        |  |
| Consumer   | Human - inhalation                            | Long term, local effects    | DNEL | 7     | mg/m <sup>3</sup> |  |
| Consumer   | Human - dermal                                | Long term, systemic effects | DNEL | 53    | mg/m <sup>3</sup> |  |

## 8.2 Exposure controls

### 8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.  
 If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.  
 Applies only if maximum permissible exposure values are listed here.

### 8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.  
 Wash hands before breaks and at end of work.  
 Keep away from food, drink and animal feedingstuffs.  
 Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:  
 Tight fitting protective goggles (EN 166) with side protection, with danger of projections.

Skin protection - Hand protection:  
 Chemical resistant protective gloves (EN 374).  
 If applicable  
 Protective nitrile gloves (EN 374)  
 Protective Neoprene® / polychloroprene gloves (EN 374).  
 Protective PVC gloves (EN 374)  
 Minimum layer thickness in mm:  
 0,5  
 Permeation time (penetration time) in minutes:  
 >= 480  
 The breakthrough times determined in accordance with EN 374 Part 3 were not obtained under practical conditions.  
 The recommended maximum wearing time is 50% of breakthrough time.  
 Protective hand cream recommended.

Skin protection - Other:  
 Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:  
 Normally not necessary.  
 If OES or MEL is exceeded.  
 Filter A2 P2 (EN 14387), code colour brown, white  
 Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:  
 Not applicable

Additional information on hand protection - No tests have been performed.  
 In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.  
 Selection of materials derived from glove manufacturer's indications.  
 Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.  
 Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.

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In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.  
 The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

### 8.2.3 Environmental exposure controls

No information available at present.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|  |                |
|--|----------------|
| Physical state:                          | Liquid         |
| Colour:                                  | Cyan           |
| Odour:                                   | Mild           |
| Odour threshold:                         | Not determined |
| pH-value:                                | Not determined |
| Melting point/freezing point:            | Not determined |
| Initial boiling point and boiling range: | Not determined |
| Flash point:                             | Not determined |
| Evaporation rate:                        | Not determined |
| Flammability (solid, gas):               | Not determined |
| Lower explosive limit:                   | Not determined |
| Upper explosive limit:                   | Not determined |
| Vapour pressure:                         | Not determined |
| Vapour density (air = 1):                | Not determined |
| Density:                                 | Not determined |
| Bulk density:                            | n.a.           |
| Solubility(ies):                         | Not determined |
| Water solubility:                        | Soluble        |
| Partition coefficient (n-octanol/water): | Not determined |
| Auto-ignition temperature:               | Not determined |
| Decomposition temperature:               | Not determined |
| Viscosity:                               | Not determined |
| Explosive properties:                    | Not determined |
| Oxidising properties:                    | No             |

### 9.2 Other information

|                           |                |
|---------------------------|----------------|
| Miscibility:              | Not determined |
| Fat solubility / solvent: | Not determined |
| Conductivity:             | Not determined |
| Surface tension:          | Not determined |
| Solvents content:         | Not determined |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

The product has not been tested.

### 10.2 Chemical stability

Stable with proper storage and handling.

### 10.3 Possibility of hazardous reactions

No dangerous reactions are known.

### 10.4 Conditions to avoid

Strong heat

### 10.5 Incompatible materials

Avoid contact with strong oxidizing agents.

Avoid contact with strong acids.

### 10.6 Hazardous decomposition products

See also section 5.2

No decomposition when used as directed.

## SECTION 11: Toxicological information

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## 11.1 Information on toxicological effects

Possibly more information on health effects, see Section 2.1 (classification).

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| Toxicity / effect   | Endpoint | Value | Unit | Organism | Test method | Notes  |
|---|----------|-------|------|----------|-------------|--|
| Acute toxicity, by oral route:                                |          |       |      |          |             | n.d.a.   |
| Acute toxicity, by dermal route:                              |          |       |      |          |             | n.d.a.   |
| Acute toxicity, by inhalation:                                |          |       |      |          |             | n.d.a.   |
| Skin corrosion/irritation:                                    |          |       |      |          |             | n.d.a.   |
| Serious eye damage/irritation:                                |          |       |      |          |             | n.d.a.   |
| Respiratory or skin sensitisation:                            |          |       |      |          |             | n.d.a.   |
| Germ cell mutagenicity:                                       |          |       |      |          |             | n.d.a.   |
| Carcinogenicity:  |          |       |      |          |             | n.d.a.   |
| Reproductive toxicity:  |          |       |      |          |             | n.d.a.   |
| Specific target organ toxicity - single exposure (STOT-SE):   |          |       |      |          |             | n.d.a.   |
| Specific target organ toxicity - repeated exposure (STOT-RE): |          |       |      |          |             | n.d.a.   |
| Aspiration hazard:  |          |       |      |          |             | n.d.a.   |
| Symptoms:   |          |       |      |          |             | n.d.a.   |
| Other information:  |          |       |      |          |             | Classification according to calculation procedure. |

### Ethanediol

| Toxicity / effect                  | Endpoint | Value | Unit    | Organism    | Test method                                | Notes  |
|------------------------------------|----------|-------|---------|-------------|--|--|
| Acute toxicity, by oral route:     | LD50     | 7712  | mg/kg   | Rat         | IUCLID Chem. Data Sheet (ESIS)             | Does not conform with EU classification.                         |
| Acute toxicity, by dermal route:   | LD50     | 9530  | mg/kg   | Rabbit      |  |  |
| Acute toxicity, by inhalation:     | LC50     | >2,5  | mg/l/6h | Rat         |  |  |
| Skin corrosion/irritation:         |          |       |         | Rabbit      |  | Not irritant   |
| Serious eye damage/irritation:     |          |       |         | Rabbit      |  | Slightly irritant  |
| Respiratory or skin sensitisation: |          |       |         | Human being | (Patch-Test)                               | Negative   |
| Germ cell mutagenicity:            |          |       |         |             | OECD 471 (Bacterial Reverse Mutation Test) | Negative   |
| Symptoms:                          |          |       |         |             |  | ataxia, breathing difficulties, unconsciousness, cramps, fatigue |

### Disodium tetraborate pentahydrate

| Toxicity / effect                  | Endpoint | Value     | Unit    | Organism   | Test method  | Notes   |
|------------------------------------|----------|-----------|---------|------------|--|---|
| Acute toxicity, by oral route:     | LD50     | 3200-3400 | mg/kg   | Rat        |  |   |
| Acute toxicity, by dermal route:   | LD50     | >2000     | mg/kg   | Rabbit     |  |   |
| Acute toxicity, by inhalation:     | LC50     | >2        | mg/l/4h | Rat        | OECD 403 (Acute Inhalation Toxicity)                         |   |
| Skin corrosion/irritation:         |          |           |         | Rabbit     |  | Not irritant, Analogous conclusion                      |
| Serious eye damage/irritation:     |          |           |         | Rabbit     | OECD 405 (Acute Eye Irritation/Corrosion)                    | Mild irritant   |
| Respiratory or skin sensitisation: |          |           |         | Guinea pig | OECD 406 (Skin Sensitisation)                                | Not sensitising   |
| Carcinogenicity:                   |          |           |         | Mouse      | OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies) | No indications of such an effect., Analogous conclusion |
| Reproductive toxicity:             |          |           |         | Rat        |  | Repr. 1B, Analogous conclusion                          |

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|           |  |  |  |  |  |  |   |
|-----------|--|--|--|--|--|--|---|
| Symptoms: |  |  |  |  |  |  | breathing difficulties, headaches, gastrointestinal disturbances, dizziness, nausea |
|-----------|--|--|--|--|--|--|---|

## SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

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|---|----------|------|-------|------|----------|-------------|--------|
| Toxicity / effect                           | Endpoint | Time | Value | Unit | Organism | Test method | Notes  |
| 12.1. Toxicity to fish:                     |          |      |       |      |          |             | n.d.a. |
| 12.1. Toxicity to daphnia:                  |          |      |       |      |          |             | n.d.a. |
| 12.1. Toxicity to algae:                    |          |      |       |      |          |             | n.d.a. |
| 12.2. Persistence and degradability:        |          |      |       |      |          |             | n.d.a. |
| 12.3. Bioaccumulative potential:            |          |      |       |      |          |             | n.d.a. |
| 12.4. Mobility in soil:                     |          |      |       |      |          |             | n.d.a. |
| 12.5. Results of PBT and vPvB assessment    |          |      |       |      |          |             | n.d.a. |
| 12.6. Other adverse effects:                |          |      |       |      |          |             | n.d.a. |

| Ethanediol                           |          |       |           |      |                                 |  |                       |
|--------------------------------------|----------|-------|-----------|------|---------------------------------|--|-----------------------|
| Toxicity / effect                    | Endpoint | Time  | Value     | Unit | Organism                        | Test method  | Notes                 |
| 12.1. Toxicity to fish:              | LC50     | 96h   | >10000    | mg/l | Pimephales promelas             | IUCLID Chem. Data Sheet (ESIS)   |                       |
| 12.1. Toxicity to daphnia:           | EC50     | 48h   | 41100     | mg/l | Daphnia magna                   |  |                       |
| 12.1. Toxicity to algae:             | EC50     | 96h   | 6500-7500 | mg/l | Pseudokirchneriella subcapitata |  |                       |
| 12.1. Toxicity to algae:             | IC5      | 7d    | > 10000   | mg/l | Scenedesmus quadricauda         |  |                       |
| 12.2. Persistence and degradability: |          | 28d   | 90-100    | %    |                                 | OECD 301 A (Ready Biodegradability - DOC Die-Away Test)                                  | Readily biodegradable |
| 12.3. Bioaccumulative potential:     | Log Pow  |       | -1,36     |      |                                 |  | Not to be expected    |
| Toxicity to bacteria:                | EC20     | 30min | >10000    | mg/l | activated sludge                | OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation)) |                       |

| Disodium tetraborate pentahydrate |           |      |       |      |                   |             |                      |
|-----------------------------------|-----------|------|-------|------|-------------------|-------------|----------------------|
| Toxicity / effect                 | Endpoint  | Time | Value | Unit | Organism          | Test method | Notes                |
| 12.1. Toxicity to fish:           | LC50      | 96h  | 74    | mg/l | Limanda limanda   |             | Analogous conclusion |
| 12.1. Toxicity to fish:           | NOEC/NOEL | 96h  | 13    | mg/l | Brachydanio rerio |             |                      |
| 12.1. Toxicity to daphnia:        | EC50      | 48h  | 133   | mg/l | Daphnia magna     |             | Analogous conclusion |
| 12.1. Toxicity to algae:          | NOEC/NOEL | 10d  | 50    | mg/l |                   |             |                      |
| 12.3. Bioaccumulative potential:  | BCF       |      | 121   |      |                   |             | Analogous conclusion |



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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### For the substance / mixture / residual amounts

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product. Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)

16 01 14 antifreeze fluids containing hazardous substances

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

E.g. suitable incineration plant.

E.g. dispose at suitable refuse site.

#### For contaminated packing material

Pay attention to local and national official regulations.

Empty container completely.

Dispose of packaging that cannot be cleaned in the same manner as the substance.

Uncontaminated packaging can be recycled.

Do not perforate, cut up or weld uncleaned container.

Residues may present a risk of explosion.

## SECTION 14: Transport information

### General statements

14.1. UN number: n.a.

#### Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:

14.3. Transport hazard class(es):

n.a.

14.4. Packing group:

n.a.

Classification code:

n.a.

LQ (ADR 2015):

n.a.

14.5. Environmental hazards:

Not applicable

Tunnel restriction code:

#### Transport by sea (IMDG-code)

14.2. UN proper shipping name:

14.3. Transport hazard class(es):

n.a.

14.4. Packing group:

n.a.

Marine Pollutant:

n.a.

14.5. Environmental hazards:

Not applicable

#### Transport by air (IATA)

14.2. UN proper shipping name:

14.3. Transport hazard class(es):

n.a.

14.4. Packing group:

n.a.

14.5. Environmental hazards:

Not applicable

#### 14.6. Special precautions for user

Unless specified otherwise, general measures for safe transport must be followed.

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

Non-dangerous material according to Transport Regulations.

## SECTION 15: Regulatory information

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

For classification and labelling see Section 2.

Observe restrictions:

Comply with trade association/occupational health regulations.

Observe youth employment law (German regulation).

GB

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Observe law on protection of expectant mothers (German regulation).  
 Directive 2010/75/EU (VOC): n.a.  
 Regulation (EC) No 1907/2006, Annex XVII  
 Disodium tetraborate pentahydrate  
**15.2 Chemical safety assessment**  
 A chemical safety assessment is not provided for mixtures.

## SECTION 16: Other information

Revised sections: 1 - 16  
 These details refer to the product as it is delivered.  
 Employee instruction/training in handling hazardous materials is required.

### Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

| Classification in accordance with regulation (EC) No. 1272/2008 (CLP) | Evaluation method used                             |
|---|--|
| STOT RE 2, H373   | Classification according to calculation procedure. |

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).

H360FD May damage fertility. May damage the unborn child.  
 H302 Harmful if swallowed.  
 H319 Causes serious eye irritation.  
 H373 May cause damage to organs through prolonged or repeated exposure.

STOT RE — Specific target organ toxicity - repeated exposure  
 Acute Tox. — Acute toxicity - oral  
 Eye Irrit. — Eye irritation  
 Repr. — Reproductive toxicity

### Any abbreviations and acronyms used in this document:

AC Article Categories  
 acc., acc. to according, according to  
 ACGIH American Conference of Governmental Industrial Hygienists  
 ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 AOEL Acceptable Operator Exposure Level  
 AOX Adsorbable organic halogen compounds  
 approx. approximately  
 Art., Art. no. Article number  
 ATE Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)  
 BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)  
 BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)  
 BCF Bioconcentration factor  
 BGV Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation)  
 BHT Butylhydroxytoluol (= 2,6-Di-t-butyl-4-methyl-phenol)  
 BMGV Biological monitoring guidance value (EH40, UK)  
 BOD Biochemical oxygen demand  
 BSEF Bromine Science and Environmental Forum  
 bw body weight  
 CAS Chemical Abstracts Service  
 CEC Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants and Other Fluids  
 CESIO Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques  
 CIPAC Collaborative International Pesticides Analytical Council  
 CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)

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CMR carcinogenic, mutagenic, reproductive toxic  
 COD Chemical oxygen demand  
 CTFA Cosmetic, Toiletry, and Fragrance Association  
 DMEL Derived Minimum Effect Level  
 DNEL Derived No Effect Level  
 DOC Dissolved organic carbon  
 DT50 Dwell Time - 50% reduction of start concentration  
 DVS Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding and Allied Processes)  
 dw dry weight  
 e.g. for example (abbreviation of Latin 'exempli gratia'), for instance  
 EC European Community  
 ECHA European Chemicals Agency  
 EEA European Economic Area  
 EEC European Economic Community  
 EINECS European Inventory of Existing Commercial Chemical Substances  
 ELINCS European List of Notified Chemical Substances  
 EN European Norms  
 EPA United States Environmental Protection Agency (United States of America)  
 ERC Environmental Release Categories  
 ES Exposure scenario  
 etc. et cetera  
 EU European Union  
 EWC European Waste Catalogue  
 Fax. Fax number  
 gen. general  
 GHS Globally Harmonized System of Classification and Labelling of Chemicals  
 GWP Global warming potential  
 HET-CAM Hen's Egg Test - Chorionallantoic Membrane  
 HGWP Halocarbon Global Warming Potential  
 IARC International Agency for Research on Cancer  
 IATA International Air Transport Association  
 IBC Intermediate Bulk Container  
 IBC (Code) International Bulk Chemical (Code)  
 IC Inhibitory concentration  
 IMDG-code International Maritime Code for Dangerous Goods  
 incl. including, inclusive  
 IUCLID International Uniform Chemical Information Database  
 LC lethal concentration  
 LC50 lethal concentration 50 percent kill  
 LCLo lowest published lethal concentration  
 LD Lethal Dose of a chemical  
 LD50 Lethal Dose, 50% kill  
 LDLo Lethal Dose Low  
 LOAEL Lowest Observed Adverse Effect Level  
 LOEC Lowest Observed Effect Concentration  
 LOEL Lowest Observed Effect Level  
 LQ Limited Quantities  
 MARPOL International Convention for the Prevention of Marine Pollution from Ships  
 n.a. not applicable  
 n.av. not available  
 n.c. not checked  
 n.d.a. no data available  
 NIOSH National Institute of Occupational Safety and Health (United States of America)  
 NOAEC No Observed Adverse Effective Concentration  
 NOAEL No Observed Adverse Effect Level  
 NOEC No Observed Effect Concentration  
 NOEL No Observed Effect Level  
 ODP Ozone Depletion Potential  
 OECD Organisation for Economic Co-operation and Development  
 org. organic  
 PAH polycyclic aromatic hydrocarbon  
 PBT persistent, bioaccumulative and toxic  
 PC Chemical product category  
 PE Polyethylene

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PNEC Predicted No Effect Concentration  
POCP Photochemical ozone creation potential  
ppm parts per million  
PROC Process category  
PTFE Polytetrafluorethylene  
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)  
REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.  
RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)  
SADT Self-Accelerating Decomposition Temperature  
SAR Structure Activity Relationship  
SU Sector of use  
SVHC Substances of Very High Concern  
Tel. Telephone  
ThOD Theoretical oxygen demand  
TOC Total organic carbon  
TRGS Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)  
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods  
VbF Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))  
VOC Volatile organic compounds  
vPvB very persistent and very bioaccumulative  
WEL-TWA, WEL-STEL WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period), WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period) (EH40, UK).  
WHO World Health Organization  
wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.  
No responsibility.

These statements were made by:

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