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

1.1 Product identifier

Trade name: MinutenWipes

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

Relevant identified uses: Cleaning and disinfecting agent

Intended purpose: Alcoholic wet wipes for the quick cleaning and disinfection of surfaces of medical devices such as turbines, hand pieces and contra-angles, unit grips, suspension tables and medical equipment.

Uses advised against: None at intended use.

Note: The product is intended for professional users.

1.3. Details of the supplier of the safety data sheet

Manufacturer/Supplier: ALPRO MEDICAL GMBH
Mooswiesenstraße 9
D-78112 St. Georgen (Germany)
Telephone: +49 7725 9392-0
Telefax: +49 7725 9392-91
E-mail: alpro@alpro-medical.de
Internet: www.alpro-medical.com

E-mail address for the competent person responsible for the safety data sheet: doku@alpro-medical.de

1.4. Emergency telephone number

In-house emergency telephone number: +49 7725 9392-0
Monday – Friday from 08:00 am to 04:30 pm (UTC+1);
for chemical information and legal information on hazardous substances only

Poison centre: +49 761 19240
Poisoning information centre, Freiburg, Germany
(24 h / 7 d), English is spoken

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 [CLP]

<table>
<thead>
<tr>
<th>Classification</th>
<th>Classification procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flam. Liq. 3; H226</td>
<td>On basis of test data (Flash point)</td>
</tr>
<tr>
<td>Eye Irrit. 2; H319</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

Full text of hazard classes as well as H-phrases: see under SECTION 16.3.

Classification in accordance with Directive 1999/45/EC

see SECTION 16.1.

2.2. Label elements
Label elements in accordance with Regulation (EC) No 1272/2008 [CLP]

Hazard pictograms:

- Signal word: Warning
- Hazard components for labelling: 
  - P-phrases: P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  P233 Keep container tightly closed.  P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  P337+P313 If eye irritation persists: Get medical advice/attention.

Label elements in accordance with Directive 1999/45/EC
see SECTION 16.2.

2.3. Other hazards

The substances in the mixture do not meet the PBT/vPvB criteria according to Regulation (EC) No 1907/2006, Annex XIII.

No further hazards known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterisation: Nonwoven wipes soaked with disinfecting solution. The disinfecting solution is a mixture of substances listed below with non-hazardous additions in aqueous solution.

Hazardous ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Identification numbers</th>
<th>Classification in accordance with Directive 67/548/EEC</th>
<th>Classification in accordance with Regulation (EC) No 1272/2008</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>CAS No: 64-17-5  EC No: 200-578-6  Index No: 603-002-00-5  REACH Registration No: 01-2119457610-43-XXXX</td>
<td>F; R11</td>
<td>Flam. Liq. 2; H225  Eye Irrit. 2; H319</td>
<td>≥ 30 - &lt; 50</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>CAS No: 67-63-0  EC No: 200-661-7  Index No: 603-117-00-0  REACH Registration No: 01-2119457558-25-XXXX</td>
<td>F; R11  Xi; R36  R67</td>
<td>Flam. Liq. 2; H225  Eye Irrit. 2; H319  STOT SE 3; H336</td>
<td>≥ 5 - &lt; 15</td>
</tr>
</tbody>
</table>
D-glucronic acid, compound with N,N''-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecane-diamidine (2:1)  
CAS No: 18472-51-0  
EC No: 242-354-0  
REACH Registration No: 01-2119946568-22-XXXX  
Xi; R41  
N; R50/53  
Eye Dam. 1; H318  
Aquatic Acute 1; H400  
Aquatic Chronic 1; H410  
M-Factor acute: 10  
M-Factor chronic: 1  
< 0.2

N,N-Didecyl-N-methylpoly(oxyethyl)lammonium propionate  
CAS No: 94667-33-1  
EC No: 619-057-3  
REACH Registration No: 01-2119950327-36-XXXX  
Xn; R22  
C; R34  
N; R50/53  
Acute Tox. 4; H302  
Skin Corr. 1B; H314  
Aquatic Acute 1; H400  
Aquatic Chronic 1; H410  
M-Factor acute: 10  
M-Factor chronic: 10  
< 0.2

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine  
CAS No: 2372-82-9  
EC No: 219-145-8  
REACH Registration No: 01-2119980592-29-XXXX  
Xn; R22-48/22  
C; R35  
N; R50/53  
Acute Tox. 3; H301  
Skin Corr. 1B; H314  
STOT RE 2; H373  
Aquatic Acute 1; H400  
Aquatic Chronic 1; H410  
M-Factor acute: 10  
< 0.2

Full text of code letters, hazard classes, R- and H-phrases: see SECTION 16.3.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information: First aider: Pay attention to self-protection!

Following inhalation: Move affected person into fresh air and keep still and warm. In case of continued complaints seek medical advice.

Following skin contact: By way of precaution, wash skin with water and soap. In case of skin reactions, consult a physician.

Following eye contact: Flush eyes immediately with flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Consult an ophthalmologist.

Following ingestion: Rinse mouth with water. Let drink plenty of water. Do not induce vomiting. Consult a physician immediately.

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

Causes serious eye irritation.

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

No information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Water spray jet, alcohol resistant foam, extinguishing powder, carbon dioxide (CO₂)

Unsuitable extinguishing media: Full water jet

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products: Carbon monoxide (CO), carbon dioxide (CO₂)
5.3. Advice for firefighters

Special protective equipment: Wear self-contained breathing apparatus.

Further information: Cool endangered containers with water spray jet.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Use personal protective equipment. See SECTION 8.2.

For emergency responders
Use personal protective equipment. See SECTION 8.2.

6.2. Environmental precautions
Do not discharge into drains or rivers.

6.3. Methods and material for containment and cleaning up

Containment
Not necessary.

Cleaning up
Collect in suitable, closed containers for disposal.

Other information
Inappropriate containment and cleaning methods are not known.

6.4. Reference to other sections
Information on safe handling see SECTION 7.1.
Information on personal protective equipment see SECTION 8.2.
Information on disposal see SECTION 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions
Avoid contact with skin and eyes. Avoid breathing vapours. Keep away from sources of ignition. Provide adequate ventilation. Keep container tightly closed.

Advice on general occupational hygiene
When using do not eat, drink or smoke. Wash hands before breaks and at end of work. Keep away from food and drink.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels: Keep only in the original container. Keep container tightly closed.

Advice on common storage: Not necessary
Further information on storage conditions: Not necessary
Storage class ([DE] TRGS 510): LGK 4.1B Flammable solids
7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific end uses are stipulated.

Industry and sector specific guidance

[DE] TRGS 525 – Hazardous substances in medical care facilities (Section 7 Activities with disinfectants); Issue: September 2014; Source: GMBl 2014 page 1294-1307 of 13.10.2014 [No 63]; www.baua.de

[DE] DGUV rules 107-002 (former BGR 206) - Disinfection works in health service Issue: July 1999; Source: www.dguv.de/publikationen

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Country</th>
<th>Limit values</th>
<th>Legal basis</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Long term (8 hours)</td>
<td>Short term (15 minutes)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ppm</td>
<td>mg/m³</td>
<td>ppm</td>
</tr>
</tbody>
</table>

Ethanol (CAS No: 64-17-5)

EU      no limit value specified
UK 1000 1920 - - EH40

Propan-2-ol (CAS No: 67-63-0)

EU      no limit value specified
UK 400 999 500 1250 EH40

Used abbreviations, symbols, numerals and explanations in column „Remarks“

- Biological limit values

<table>
<thead>
<tr>
<th>Country</th>
<th>Parameter</th>
<th>Limit value</th>
<th>Test material</th>
<th>Sampling time</th>
<th>Legal basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>Acetone</td>
<td>25 mg/l</td>
<td>Whole blood</td>
<td>End of exposition, resp. end of shift</td>
<td>TRGS 903</td>
</tr>
<tr>
<td></td>
<td>Acetone</td>
<td>25 mg/l</td>
<td>Urine</td>
<td>End of exposition, resp. end of shift</td>
<td>TRGS 903</td>
</tr>
</tbody>
</table>

Information on monitoring procedures

BS EN 482:2012-04-30; Title: Workplace exposure - General requirements for the performance of procedures for the measurement of chemical agents; British version of EN 482:2012

BS EN 689:1996-04-15; Title: Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy; British version of EN 689:1995

BS EN 14042:2003-04-24; Title: Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents; British version of EN 14042:2003

8.2. Exposure controls

Appropriate engineering controls
Technical and organisational protective measures

The eyewash station (or eyewash bottle) must be located near the workplace.

Personal protective equipment

Eye/face protection: Not necessary when used as intended.

Skin protection:

   Hand protection: Protective gloves according to EN 374 are recommended
   Splash guard: Disposable gloves made of nitrile rubber (thickness 0.11 mm)
   Permanent contact (> 480 min): Protective gloves made of nitrile rubber (thickness 0.40 mm)

   Other skin protection: Not necessary when used as intended.

Respiratory protection: Not necessary when used as intended.

Thermal hazards: No special protective measures necessary.

Environmental exposure controls

Do not discharge into drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties
(Information refer to the disinfecting solution)

   Appearance: clear, colourless liquid
   Odour: alcoholic, of lemon
   Odour threshold: no data available
   pH (100 g/l H₂O): 7.5 – 8.5 (20 °C)
   Melting point/freezing point: no data available
   Initial boiling point and boiling range: no data available
   Flash point: 23 °C (EN ISO 2719:2002)
   Evaporation rate: no data available
   Flammability (solid, gas): not applicable
   Lower explosive limit:
      Ethanol: 3 vol%
      Propan-2-ol: 2 vol%
   Upper explosive limit:
      Ethanol: 15 vol%
      Propan-2-ol: 13 vol%
   Vapour pressure: no data available (... °C)
   Vapour density: no data available
   Relative density: 0.885 – 0.895 (20 °C)
   Solubility in water: completely soluble
   Partition coefficient: not applicable
   n-octanol/water
   Auto-ignition temperature: not applicable
   Decomposition temperature: no data available
Viscosity: no data available

Explosive properties: The product is not explosive. However, formation of explosive vapour/air mixtures is possible.

Oxidising properties: none

9.2. Other information

Refractive index nD: 1.3646-1.3664 (20 °C)
Electrical conductivity (undiluted): 70-90 µS/cm (20 °C)

SECTION 10: Stability and reactivity

10.1. Reactivity
No hazardous reactions when handled and stored as intended.

10.2. Chemical stability
The product is stable when handled and stored as intended.

10.3. Possibility of hazardous reactions
Vapours may form explosive mixtures with air.

10.4. Conditions to avoid
Keep away from heat and sources of ignition.

10.5. Incompatible materials
None known

10.6. Hazardous decomposition products
Does not decompose when used as intended.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Product

Acute toxicity - oral: Acute Toxicity Estimate ATE_{max} > 2000 mg/kg
=> no classification

Acute toxicity - dermal: Acute Toxicity Estimate ATE_{max} > 2000 mg/kg
=> no classification

Acute toxicity - inhalation: Acute Toxicity Estimate ATE_{max} > 20 mg/l
=> no classification

Ingredients

N,N-Didecyl-N-methylpoly(oxyethyl)ammonium propionate (CAS No: 94667-33-1):
Acute toxicity - oral: \( \text{LD}_{50} \): 1157 mg/kg; species: rat; method: OECD 401

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (CAS No: 2372-82-9):
Acute toxicity - oral: \( \text{LD}_{50} \): 261 mg/kg; species: rat; method: OECD 401
Acute toxicity - dermal: \( \text{LD}_{50} \): > 600 mg/kg; species: rat; method: OECD 402
Skin corrosion/irritation
Product
No classification. [calculation method]

Serious eye damage/irritation
Product
Causes serious eye irritation. [calculation method]

Respiratory or skin sensitisation
Product
No classification. [calculation method]

Germ cell mutagenicity
Product
No data available.

Carcinogenicity
Product
No data available.

Reproductive toxicity
Product
No data available.

STOT-single exposure
Product
No classification. [calculation method]

Ingredients
Propan-2-ol (CAS No: 67-63-0):
May cause drowsiness or dizziness.

STOT-repeated exposure
Product
No classification. [calculation method]

Ingredients
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (CAS No: 2372-82-9):
NOAEL: 9 mg/kg; Application Route: Oral; Exposure period: 90 d; species: rat
NOAEL: 20 mg/kg; Application Route: Food; Exposure period: 90 d; species: dog
NOAEL: 15 mg/kg; Application Route: Skin; Exposure period: 90 d; species: rat

Aspiration hazard
Product
No data available.

SECTION 12: Ecological information

12.1. Toxicity
No classification. [calculation method]
12.2. Persistence and degradability

Biodegradability:

The disinfecting solution is biodegradable according to OECD criteria. The statement has been derived from the properties of the ingredients.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to Regulation (EC) No 1907/2006, Annex XIII.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal of the product

Product residues must be disposed of as hazardous waste in compliance with the Directive 2008/98/EC on waste as well as national and regional regulations. Do not dispose of via the waste water. Leave product in the original container as possible. Do not mix with other waste materials.

Waste codes / waste designations according to EWC

Product residues: 15 02 02* absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances

Disposal of the packaging

Packaging contaminated with product is considered as hazardous waste and must be disposed of accordingly.

Waste codes / waste designations according to EWC

Contaminated packaging: 15 01 10* packaging containing residues of or contaminated by hazardous substances

Recommendation

Contaminated packaging must be emptied optimally and can be recycled after appropriate cleaning (rinse with water).

SECTION 14: Transport information

14.0. Transport classification

Dangerous good in sense of the transport regulations in road traffic (ADR), railway traffic (RID), inland waterway traffic (ADN), maritime traffic (IMDG-Code) and air traffic (ICAO-TI/IATA-DGR).

14.1. UN number

UN 3175
14.2. UN proper shipping name

ADR/RID/ADN
SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. (Ethanol, Isopropanol)

IMDG-Code/ICAO-TI/IATA-DGR
SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. (Ethanol, Isopropanol)

14.3. Transport hazard class(es)

Class: 4.1
Subsidiary risk(s): -

14.4. Packing group

II

14.5. Environmental hazards

ADR/RID/ADN
Environmentally Hazardous: No

IMDG-Code
Marine Pollutant: No

14.6. Special precautions for user

Not necessary.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

14.8. Further information

Transport category according to ADR section 1.1.3.6: 2
Maximum total quantity per transport unit according to ADR section 1.1.3.6: 333 kg
Limited quantity (Maximum quantity per inner packaging) according to ADR/RID/ADN/IMDG-Code: 1 kg
Classification code according to ADR/RID/ADN: F1
Hazard identification number according to ADR/RID: 40
Tunnel restriction code according to ADR/RID: E
Segregation group according to IMDG-Code section 5.4.1.5.11.1: -
EmS codes: F-A, S-I

SECTION 15: Regulatory information

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

EU-Regulations
REGULATION (EC) No 1005/2009 on substances that deplete the ozone layer
not applicable
not applicable

REGULATION (EU) No 649/2012 concerning the export and import of hazardous chemicals
not applicable

DIRECTIVE 2012/18/EU (Seveso III Directive) on the control of major-accident hazards involving

<table>
<thead>
<tr>
<th>Hazard category</th>
<th>Qualifying quantity (tonnes) (lower-tier establishment)</th>
<th>Qualifying quantity (tonnes) (upper-tier establishment)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P5c FLAMMABLE LIQUIDS</td>
<td>5.000</td>
<td>50.000</td>
</tr>
</tbody>
</table>

DIRECTIVE 2010/75/EU on industrial emissions (integrated pollution prevention and control)
not applicable

REACH – List of substances subject to authorisation (Annex XIV)
not applicable

REACH – Restrictions on the manufacture, placing on the market and use of certain dangerous
substances, mixtures and articles (Annex XVII)
not applicable

COUNCIL DIRECTIVE 94/33/EC on the protection of young people at work
not applicable

COUNCIL DIRECTIVE 92/85/EEC on the introduction of measures to encourage improvements in the
safety and health at work of pregnant workers and workers who have recently given birth or are
breastfeeding
not applicable

15.2. Chemical safety assessment
For this mixture no chemical safety assessment has been carried out.

SECTION 16: Other information


*Note: This is the previous classification; products with this classification can still be in the supply chain or on the
market and are allowed to be sold until 01.06.2017.*

R10

Full text of R-phrases: see under SECTION 16.3.

16.2. Label elements in accordance with Directive 1999/45/EC

*Note: This is the previous labelling; products with this labelling can still be in the supply chain or on the market and are
allowed to be sold until 01.06.2017.*

Danger symbols: -
Indications of danger: -
Hazard components for labelling: -
R-phrases: R10 Flammable.
S-phrases:  
S7  Keep container tightly closed.  
S25  Avoid contact with eyes.  

Special labelling of certain preparations (Directive 1999/45/EC Annex V):  
not necessary  

16.3. Full text of code letters, hazard classes, R- and H-phrases  

Code letters and categories of danger  

<table>
<thead>
<tr>
<th>Code Letter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>Corrosive</td>
</tr>
<tr>
<td>F</td>
<td>Highly flammable</td>
</tr>
<tr>
<td>N</td>
<td>Dangerous for the environment</td>
</tr>
<tr>
<td>Xi</td>
<td>Irritant</td>
</tr>
<tr>
<td>Xn</td>
<td>Harmful</td>
</tr>
</tbody>
</table>

Hazard classes  

<table>
<thead>
<tr>
<th>Code Letter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox.</td>
<td>Acute toxicity</td>
</tr>
<tr>
<td>Aquatic Acute</td>
<td>Acute aquatic hazard</td>
</tr>
<tr>
<td>Aquatic Chronic</td>
<td>Long-term aquatic hazard</td>
</tr>
<tr>
<td>Eye Dam.</td>
<td>Serious eye damage</td>
</tr>
<tr>
<td>Eye Irrit.</td>
<td>Eye irritation</td>
</tr>
<tr>
<td>Flam. Liq.</td>
<td>Flammable liquid</td>
</tr>
<tr>
<td>Skin Corr.</td>
<td>Skin corrosion</td>
</tr>
<tr>
<td>STOT RE</td>
<td>Specific target organ toxicity (repeated exposure)</td>
</tr>
<tr>
<td>STOT SE</td>
<td>Specific target organ toxicity (single exposure)</td>
</tr>
</tbody>
</table>

R-phrases (Indications concerning special risks)  

<table>
<thead>
<tr>
<th>R-Phrase</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R10</td>
<td>Flammable.</td>
</tr>
<tr>
<td>R11</td>
<td>Highly flammable.</td>
</tr>
<tr>
<td>R22</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>R34</td>
<td>Causes burns.</td>
</tr>
<tr>
<td>R35</td>
<td>Causes severe burns.</td>
</tr>
<tr>
<td>R36</td>
<td>Irritating to eyes.</td>
</tr>
<tr>
<td>R41</td>
<td>Risk of serious damage to eyes.</td>
</tr>
<tr>
<td>R48/22</td>
<td>Harmful: danger of serious damage to health by prolonged exposure if swallowed.</td>
</tr>
<tr>
<td>R50/53</td>
<td>Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</td>
</tr>
<tr>
<td>R67</td>
<td>Vapours may cause drowsiness and dizziness.</td>
</tr>
</tbody>
</table>

H-phrases (Hazard statements)  

<table>
<thead>
<tr>
<th>H-Phrase</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H225</td>
<td>Highly flammable liquid and vapour.</td>
</tr>
<tr>
<td>H226</td>
<td>Flammable liquid and vapour.</td>
</tr>
<tr>
<td>H301</td>
<td>Toxic if swallowed.</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H336</td>
<td>May cause drowsiness or dizziness.</td>
</tr>
<tr>
<td>H373</td>
<td>May cause damage to organs &lt;or state all organs affected, if known&gt; through prolonged or repeated exposure &lt;state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard&gt;.</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life.</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>
16.4. Abbreviations and acronyms

**ADN**  Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)

**ADR**  Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

**BGR**  Berufsgenossenschaftliche Regeln (Employers' liability insurance association rules)

**BS**  British Standards

**CAS**  Chemical Abstracts Service

**CLP**  Regulation on Classification, Labelling and Packaging of Substances and Mixtures

**[DE]**  National German regulations

**DGUV**  Deutsche Gesetzliche Unfallversicherung (German statutory accident insurance)

**EC**  European Community

**EEC**  European Economic Community

**EmS**  Emergency Schedules (Emergency response procedures for ships carrying dangerous goods)

**EN**  European Standard

**EU**  European Union

**EWC**  European Waste Catalogue

**GHS**  Globally Harmonized System of Classification, Labelling and Packaging of Chemicals

**GMBl**  Gemeinsames Ministerialblatt (Joint Ministerial Gazette)

**IATA-DGR**  International Air Transport Association - Dangerous Goods Regulations

**IBC-Code**  International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

**ICAO-TI**  Technical Instructions For The Safe Transport of Dangerous Goods by Air

**IMDG-Code**  International Maritime Code for Dangerous Goods

**LD**  Median lethal dose

**LGK**  Lagerklasse (Storage class)

**MARPOL**  International Convention for the Prevention of Marine Pollution from Ships

**N.O.S.**  Not otherwise specified

**NOAEL**  No Observed Adverse Effect Level (dose at which no adverse effect is found)

**OECD**  Organization for Economic Co-operation and Development

**PBT**  Persistent, bioaccumulative and toxic

**ppm**  Parts per million

**REACH**  Registration, Evaluation, Authorisation and Restriction of Chemicals

**RID**  Règlement concernant le transport International ferroviaire de marchandises Dangereuses (Regulations Concerning the International Carriage of Dangerous Goods by Rail)

**TRGS**  Technische Regeln für Gefahrstoffe (Technical Rules for Hazardous Substances)

**UN**  United Nations

**UTC**  Coordinated Universal Time (French: Temps Universel Coordonné)

**vPvB**  Very persistent and very bioaccumulative

16.5. Key literature references and sources for data

- Regulation (EC) No 1907/2006 (REACH), Annex II


- GISBAU (Hazardous substances information system of the BG BAU) – course „safety data sheet“; [http://www.bgbau.de/gisbau/SDB/lehrgang/lehrgang.htm](http://www.bgbau.de/gisbau/SDB/lehrgang/lehrgang.htm)

- Regulation (EC) No 1272/2008 (CLP regulation)


16.6. Training advice

Provide adequate information, instructions and training for users.

16.7. Indication of changes

A backslash in the left hand margin indicates an amendment from the previous version.

The information given in the safety data sheet only apply to the described product in connection with its intended use. These information are based on the latest state of our knowledge at the time of revision. In particular, they describe our product under the aspect of its hazards and safety measures to be taken. They do not constitute any guarantee of product properties and quality features.