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

1.1. Product identifier

Proguard CN 200 a.s. Part A

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

Use of the substance/mixture

Coatings and paints, fillers, putties, thinners

Uses advised against

No information available.

1.3. Details of the supplier of the safety data sheet

Company name: Chesterton International GmbH
Street: Am Lenzenfleck 23
Place: DE-85737 Ismaning GERMANY
Telephone: +49 89 99 65 46 - 0
Telefax: +49 89 99 65 46 - 50
Website: www.chesterton.com
Contact person: eu-sds@chesterton.com

1.4. Emergency telephone number:

+49(0) 551 - 1 92 40 (GIZ-Nord, 24h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2
Serious eye damage/eye irritation: Eye Irrit. 2
Respiratory or skin sensitisation: Skin Sens. 1
Hazardous to the aquatic environment: Aquatic Chronic 2

Hazard Statements:

Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
Toxic to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

bis-[4-(2,3-epoxipropoxy)phenyl]propane
Reaction mass of 2,2’-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane and [2-[(2-[(oxiran-2-ylmethoxy)benzyl]phenoxo) methyl]oxirane and [2,2’-
[methylenebis(2,1-phenyleneoxymethylene)]dioxirane
Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)
Signal word: Warning

Pictograms:

Hazard statements
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements
P391 Collect spillage.
P362+P364 Take off contaminated clothing and wash it before reuse.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P273 Avoid release to the environment.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

Special labelling of certain mixtures
EUH205 Contains epoxy constituents. May produce an allergic reaction.

2.3. Other hazards
No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures
Hazardous components

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Quantity</th>
<th>EC No</th>
<th>Index No</th>
<th>REACH No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1675-54-3</td>
<td>bis-[4-(2,3-epoxipropoxy)phenyl]propane</td>
<td>10-&lt;25 %</td>
<td>216-823-5</td>
<td>603-073-00-2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H319 H317 H411</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>108-10-1</td>
<td>4-methylpentan-2-one, isobutyl methyl ketone</td>
<td>1-&lt;5 %</td>
<td>203-550-1</td>
<td>606-004-00-4</td>
<td>01-2119473980-30</td>
</tr>
<tr>
<td></td>
<td>Flam. Liq. 2, Acute Tox. 4, Eye Irrit. 2, STOT SE 3; H225 H332 H319 H335 EUH066</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>933999-84-9</td>
<td>Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)</td>
<td>1-&lt;5 %</td>
<td>618-939-5</td>
<td>01-2119463471-41</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 3; H315 H319 H317 H412</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1330-20-7</td>
<td>xylene</td>
<td>1-&lt;5 %</td>
<td>215-535-7</td>
<td>601-022-00-9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Flam. Liq. 3, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2; H226 H332 H312 H315</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Full text of H and EUH statements: see section 16.

Further Information
No information available.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information
Remove affected person from the danger area and lay down. In case of allergic symptoms, especially in the breathing area, seek medical advice immediately. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation
In case of inhalation of decomposition products, affected person should be moved into fresh air and kept still. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After contact with skin
After contact with skin, wash immediately with plenty of water and soap. Remove contaminated, saturated clothing immediately. Immediate medical treatment required because corrosive injuries that are not treated are hard to cure.
After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor.

After ingestion
If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do NOT induce vomiting.

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

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
Dry extinguishing powder. Carbon dioxide (CO2). alcohol resistant foam. Water spray jet
Unsuitable extinguishing media
Full water jet

5.2. Special hazards arising from the substance or mixture
In case of fire may be liberated: Carbon monoxide Carbon dioxide (CO2). Nitrogen oxides (NOx)

5.3. Advice for firefighters
Special protective equipment for firefighters Protective clothing. In case of fire: Wear self-contained breathing apparatus.

Additional information
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
See protective measures under point 7 and 8.
Provide adequate ventilation.
Personal protection equipment: see section 8
Remove persons to safety.

6.2. Environmental precautions
Do not allow to enter into surface water or drains. Cover drains. Adverse environmental effects

6.3. Methods and material for containment and cleaning up
Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections
See protective measures under point 7 and 8.
Disposal: see section 13
SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling
Wear personal protection equipment (refer to section 8). Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be exposed to any process in which this product is used. Persons with a history of skin sensitisation problems should not be employed in any process in which this product is used.

Avoid contact with skin, eyes and clothes. Avoid breathing dust/fume/gas/mist/vapours/spray. When using do not eat, drink or smoke.

Never use pressure to empty container. Keep/Store only in original container.

Do not allow to enter into surface water or drains.

Advice on protection against fire and explosion
Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

Further information on handling
Wash hands before breaks and after work. Used working clothes should not be worn outside the work area. Street clothing should be stored separately from work clothing.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
Keep container tightly closed in a cool, well-ventilated place. Keep/Store only in original container. Protect against direct sunlight.

Hints on joint storage
Keep away from food, drink and animal feedingstuffs.

Further information on storage conditions
Keep away from:
Frost
Heat
Humidity

7.3. Specific end use(s)
No data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
### Exposure limits (EH40)

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>ppm</th>
<th>mg/m³</th>
<th>Category</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>108-10-1</td>
<td>4-Methylpentan-2-one</td>
<td>50</td>
<td>208</td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100</td>
<td>416</td>
<td>STEL (15 min)</td>
<td>WEL</td>
</tr>
<tr>
<td>1330-20-7</td>
<td>Xylene: mixed isomers</td>
<td>50</td>
<td>220</td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100</td>
<td>441</td>
<td>STEL (15 min)</td>
<td>WEL</td>
</tr>
</tbody>
</table>

### Biological Monitoring Guidance Values (EH40)

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>Parameter</th>
<th>Value</th>
<th>Test material</th>
<th>Sampling time</th>
</tr>
</thead>
<tbody>
<tr>
<td>108-10-1</td>
<td>4-methylpentan-2-one</td>
<td>4-methylpentan-2-one methyl hippuric acid (creatinine)</td>
<td>20 µmol/L urine</td>
<td>650 mmol/mol urine</td>
<td>Post shift</td>
</tr>
<tr>
<td>1330-20-7</td>
<td>Xylene, o-, m-, p- or mixed isomers</td>
<td>4-methylpentan-2-one methyl hippuric acid (creatinine)</td>
<td></td>
<td></td>
<td>Post shift</td>
</tr>
</tbody>
</table>
### DNEL/DMEL values

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>DNEL type</th>
<th>Exposure route</th>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1675-54-3</td>
<td>bis-[4-(2,3-epoxipropoxi)phenyl]propane</td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>local</td>
<td>310 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>inhalation</td>
<td>local</td>
<td>55 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
<td>4,93 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker DNEL, long-term</td>
<td>dermal</td>
<td>systemic</td>
<td>0,75 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>dermal</td>
<td>systemic</td>
<td>0,0893 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>oral</td>
<td>systemic</td>
<td>0,5 mg/kg bw/day</td>
</tr>
<tr>
<td>Reaction mass of 2,2’-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane and [2-[(2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyloxirane and [2,2’-[methylenebis(2,1-phenyleneoxymethylene)]dioxirane</td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
<td>29,39 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker DNEL, long-term</td>
<td>dermal</td>
<td>systemic</td>
<td>104,15 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>local</td>
<td>0,0083 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
<td>8,7 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>dermal</td>
<td>systemic</td>
<td>62,5 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>oral</td>
<td>systemic</td>
<td>6,25 mg/kg bw/day</td>
</tr>
<tr>
<td>933999-84-9</td>
<td>Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)</td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
<td>10,57 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker DNEL, acute</td>
<td>inhalation</td>
<td>systemic</td>
<td>10,57 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>local</td>
<td>0,44 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker DNEL, long-term</td>
<td>dermal</td>
<td>systemic</td>
<td>6 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
<td>5,29 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, acute</td>
<td>inhalation</td>
<td>systemic</td>
<td>5,29 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>inhalation</td>
<td>local</td>
<td>0,27 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>dermal</td>
<td>systemic</td>
<td>3 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, acute</td>
<td>dermal</td>
<td>systemic</td>
<td>1,7 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>oral</td>
<td>systemic</td>
<td>1,5 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, acute</td>
<td>oral</td>
<td>systemic</td>
<td>1,5 mg/kg bw/day</td>
</tr>
<tr>
<td>108-10-1</td>
<td>4-methylpentan-2-one, isobutyl methyl ketone</td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
<td>83 mg/m³</td>
</tr>
</tbody>
</table>
Worker DNEL, acute  
inhalation  
systemic  
208 mg/m³

Worker DNEL, long-term  
inhalation  
lunar  
83 mg/m³

Worker DNEL, acute  
inhalation  
lunar  
208 mg/m³

Worker DNEL, long-term  
epidermal  
systemic  
11.8 mg/kg bw/day

Consumer DNEL, long-term  
inhalation  
systemic  
14.7 mg/m³

Consumer DNEL, acute  
inhalation  
systemic  
155.2 mg/m³

Consumer DNEL, long-term  
inhalation  
lunar  
14.7 mg/m³

Consumer DNEL, acute  
inhalation  
lunar  
155.2 mg/m³

Consumer DNEL, long-term  
epidermal  
systemic  
4.2 mg/kg bw/day

Consumer DNEL, long-term  
oral  
systemic  
4.2 mg/kg bw/day

1330-20-7 xylene

Worker DNEL, long-term  
inhalation  
lunar  
221 mg/m³

Consumer DNEL, long-term  
inhalation  
lunar  
65.3 mg/m³

Worker DNEL, long-term  
inhalation  
systemic  
221 mg/m³

Worker DNEL, acute  
inhalation  
systemic  
442 mg/m³

Worker DNEL, acute  
inhalation  
lunar  
442 mg/m³

Worker DNEL, long-term  
epidermal  
systemic  
212 mg/kg bw/day

Consumer DNEL, long-term  
inhalation  
systemic  
65.3 mg/m³

Consumer DNEL, acute  
inhalation  
systemic  
260 mg/m³

Consumer DNEL, acute  
inhalation  
lunar  
260 mg/m³

Consumer DNEL, long-term  
epidermal  
systemic  
125 mg/kg bw/day

Consumer DNEL, long-term  
oral  
systemic  
12.5 mg/kg bw/day
<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>Environmental compartment</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1675-54-3</td>
<td>bis-[4-(2,3-epoxipropoxy)phenyl]propane</td>
<td>Freshwater</td>
<td>0.006 mg/l</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Freshwater (intermittent releases)</td>
<td>0.018 mg/l</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Marine water</td>
<td>0.001 mg/l</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Freshwater sediment</td>
<td>0.001 mg/l</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Marine sediment</td>
<td>0.341 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Secondary poisoning</td>
<td>0.034 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Micro-organisms in sewage treatment plants (STP)</td>
<td>10 mg/l</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Soil</td>
<td>0.065 mg/kg</td>
</tr>
<tr>
<td>933999-84-9</td>
<td>Reaction mass of 2,2'-(methylenebis(4,1-phenyleneoxy)methylene)dioxirane and [2-(2-<a href="phenox">4-(oxiran-2-ylmethoxy)benzyl</a> methyloxirane and [2,2'-methylenebis(2,1-phenyleneoxy)methylene)dioxirane</td>
<td>Freshwater</td>
<td>0.003 mg/l</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Freshwater sediment</td>
<td>0.294 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Marine sediment</td>
<td>0.029 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Soil</td>
<td>0.237 mg/kg</td>
</tr>
<tr>
<td>108-10-1</td>
<td>4-methylpentan-2-one, isobutyl methyl ketone</td>
<td>Freshwater</td>
<td>0.011 mg/l</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Freshwater (intermittent releases)</td>
<td>0.115 mg/l</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Marine water</td>
<td>0.001 mg/l</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Freshwater sediment</td>
<td>0.283 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Marine sediment</td>
<td>0.028 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Micro-organisms in sewage treatment plants (STP)</td>
<td>1 mg/l</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Soil</td>
<td>0.223 mg/kg</td>
</tr>
<tr>
<td>1330-20-7</td>
<td>xylene</td>
<td>Freshwater</td>
<td>0.6 mg/l</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Freshwater (intermittent releases)</td>
<td>1.5 mg/l</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Marine water</td>
<td>0.06 mg/l</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Freshwater sediment</td>
<td>8.27 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Marine sediment</td>
<td>0.83 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Micro-organisms in sewage treatment plants (STP)</td>
<td>27.5 mg/l</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Soil</td>
<td>1.3 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Freshwater</td>
<td>0.327 mg/l</td>
</tr>
</tbody>
</table>
8.2. Exposure controls

**Appropriate engineering controls**
- Provide adequate ventilation as well as local exhaustion at critical locations.

**Protective and hygiene measures**
- Work in well-ventilated zones or use proper respiratory protection. Only wear fitting, comfortable and clean protective clothing. Avoid contact with skin, eyes and clothes. Wash hands and face before breaks and after work and take a shower if necessary.

**Eye/face protection**
- Suitable eye protection:
  - Eye glasses with side protection
  - Goggles

**Hand protection**
- Tested protective gloves must be worn: EN ISO 374
- NBR (Nitrile rubber), Butyl caoutchouc (butyl rubber)
- Wearing time with permanent contact: Thickness of the glove material: >= 0,4 mm, Breakthrough time (maximum wearing time): >480 min
- Wearing time with occasional contact (splashes): Thickness of the glove material: >= 0,1 mm, Breakthrough time (maximum wearing time) > 30 min
- For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
- Breakthrough times and swelling properties of the material must be taken into consideration.

**Skin protection**
- Protective clothing
- For the protection against direct skin contact, body protective clothing is essential (in addition to the usual working clothes).

**Respiratory protection**
- If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

**Environmental exposure controls**
- Do not allow to enter into surface water or drains. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
## 9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical state</strong></td>
<td>Liquid</td>
</tr>
<tr>
<td><strong>Colour</strong></td>
<td>various</td>
</tr>
<tr>
<td><strong>Odour</strong></td>
<td>characteristic</td>
</tr>
<tr>
<td><strong>pH-Value</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Changes in the physical state</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Melting point</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Initial boiling point and boiling range</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Sublimation point</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Softening point</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Pour point</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>~62 °C</td>
</tr>
<tr>
<td><strong>Flammability</strong></td>
<td></td>
</tr>
<tr>
<td>Solid</td>
<td>No data available</td>
</tr>
<tr>
<td>Gas</td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Explosive properties</strong></td>
<td></td>
</tr>
<tr>
<td>Lower explosion limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper explosion limits</td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature</strong></td>
<td></td>
</tr>
<tr>
<td>Solid</td>
<td>No data available</td>
</tr>
<tr>
<td>Gas</td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Decomposition temperature</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Oxidizing properties</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Vapour pressure</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Density (at 23 °C)</strong></td>
<td>~1.45 g/cm³</td>
</tr>
<tr>
<td><strong>Water solubility</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Solubility in other solvents</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Partition coefficient</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Viscosity / dynamic</strong></td>
<td>~6000 mPa·s</td>
</tr>
<tr>
<td><strong>(at 23 °C)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Vapour density</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>No data available</td>
</tr>
</tbody>
</table>
9.2. Other information

No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

No decomposition if used according to specifications.

10.3. Possibility of hazardous reactions

Reacts with:
- Amines
- Alkalines
- Acids

10.4. Conditions to avoid

No data available

10.5. Incompatible materials

No data available

10.6. Hazardous decomposition products

No data available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Based on available data, the classification criteria are not met.
### Chemicals and Their Dose, Exposure Route, and Source

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Exposure route</th>
<th>Dose</th>
<th>Species</th>
<th>Source</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1675-54-3</td>
<td>bis-[4-(2,3-epoxipropoxy)phenyl]propane</td>
<td>oral</td>
<td>LD50</td>
<td>Rabbit</td>
<td>Publication (1958)</td>
<td>Rabbits were orally gavaged with test ma</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>mg/kg</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50</td>
<td>Rat</td>
<td>Study report (2007)</td>
<td>OECD Guideline 402</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>mg/kg</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalation (4 h)</td>
<td>LC50</td>
<td>Rat</td>
<td>AMA Arch. Ind. Hyg. Occ. Med. 10: 61-68</td>
<td>Rats were exposed to 8000 ppm of the test</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ca. 24,6 mg/l</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>108-10-1</td>
<td>4-methylpentan-2-one, isobutyl methyl ketone</td>
<td>inhalation (4 h)</td>
<td>LC50</td>
<td>Rat</td>
<td>AMA Arch Ind Hyg Occup Med, 4, 119-122</td>
<td>OECD Guideline 403</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&gt; 2000 - &lt; 4000 mg/l</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalation aerosol</td>
<td>ATE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1,5 mg/l</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>933999-84-9</td>
<td>Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)</td>
<td>oral</td>
<td>LD50</td>
<td>Rat</td>
<td>Study report (1981)</td>
<td>OECD Guideline 401</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>mg/kg</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalation (4 h)</td>
<td>LC50</td>
<td>Rat</td>
<td>Toxicol Appl Pharmacol 33:543-558. (1975)</td>
<td>EU Method B.2</td>
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<td></td>
<td></td>
<td></td>
<td>6700 mg/l</td>
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<td></td>
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<td>ATE</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1,5 mg/l</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Irritation and Corrosivity
- Causes skin irritation.
- Causes serious eye irritation.

### Sensitising effects
- Contains epoxy constituents. May produce an allergic reaction. May cause an allergic skin reaction. (bis-[4-(2,3-epoxipropoxy)phenyl]propane; Reaction mass of 2,2'-[methylenedioxy]-4,4,1-phenyleneoxymethylene)dioxirane and [2-{2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxo} methyl]oxirane and [2,2'-[methylenebis(2,1-phenyleneoxymethylene)]dioxirane; Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2))

### Carcinogenic/mutagenic/toxic effects for reproduction
- 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.

SECTION 12: Ecological information

12.1. Toxicity
### Aquatic toxicity

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Dose</th>
<th>[h]</th>
<th>[d]</th>
<th>Species</th>
<th>Source</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1675-54-3</td>
<td>bis-[4-(2,3-epoxipropoxi)phenyl]propane</td>
<td>Lc50</td>
<td>3,6</td>
<td>mg/l</td>
<td>Oncorhynchus mykiss</td>
<td>Study report (1982)</td>
<td>OECD Guideline 203</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>96</td>
<td>h</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Study report (2007)</td>
<td>OECD Guideline 201</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>72</td>
<td>h</td>
<td>Daphnia magna</td>
<td>REACh Regulation Dossier</td>
<td>OECD Guideline 202</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>48</td>
<td>h</td>
<td>Daphnia magna</td>
<td>REACh Registration Dossier</td>
<td>OECD Guideline 211</td>
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<tr>
<td>108-10-1</td>
<td>4-methylpentan-2-one, isobutyl methyl ketone</td>
<td>Lc50</td>
<td>&gt; 179</td>
<td></td>
<td>Danio rerio</td>
<td>Study report (2010)</td>
<td>OECD Guideline 203</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>96</td>
<td>h</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Study report (2009)</td>
<td>OECD Guideline 202</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>48</td>
<td>h</td>
<td>Daphnia magna</td>
<td>Grey literature (1988)</td>
<td>other: &quot;Vorläufigen Testverfahrensvorschlag&quot;</td>
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<tr>
<td>933999-84-9</td>
<td>Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)</td>
<td>Lc50</td>
<td>ca. 30</td>
<td></td>
<td>Oncorhynchus mykiss</td>
<td>Study report (1990)</td>
<td>OECD Guideline 203</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>96</td>
<td>h</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Study report (1989)</td>
<td>OECD Guideline 202</td>
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<tr>
<td>1330-20-7</td>
<td>xylene</td>
<td>Lc50</td>
<td>8,4</td>
<td>mg/l</td>
<td>Oncorhynchus mykiss</td>
<td>Ecotoxicology and Environmental Safety</td>
<td>OECD Guideline 203</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>48</td>
<td>h</td>
<td>Ceriodaphnia dubia</td>
<td>Ecotoxicology and Environmental Safety 3</td>
<td>other: US EPA 600/4-91-003</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>56</td>
<td>d</td>
<td>Oncorhynchus mykiss</td>
<td>Fish were exposed in artificial streams</td>
<td>Fish were exposed in artificial streams</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>7</td>
<td>d</td>
<td>Ceriodaphnia dubia</td>
<td>Ecotoxicology and Environmental Safety 3</td>
<td>other: US EPA 600/4-91-003</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>0,5</td>
<td>h</td>
<td>Activated sludge</td>
<td>Research Journal WPCF 60(10) 1850-1856</td>
<td>OECD Guideline 209</td>
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</table>
12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

Partition coefficient n-octanol/water

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Log Pow</th>
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<tbody>
<tr>
<td>1675-54-3</td>
<td>bis-[4-(2,3-epoxipropoxi)phenyl]propane</td>
<td>&gt;= 2.64</td>
</tr>
<tr>
<td>108-10-1</td>
<td>4-methylpentan-2-one, isobutyl methyl ketone</td>
<td>1.9</td>
</tr>
<tr>
<td>933999-84-9</td>
<td>Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)</td>
<td>ca. 0.822</td>
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<tr>
<td>1330-20-7</td>
<td>xylene</td>
<td>3.2</td>
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</table>

BCF

<table>
<thead>
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<th>Chemical name</th>
<th>BCF</th>
<th>Species</th>
<th>Source</th>
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</thead>
<tbody>
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<td>bis-[4-(2,3-epoxipropoxi)phenyl]propane</td>
<td>31</td>
<td>Oncorhynchus mykiss</td>
<td>Study report (2010)</td>
</tr>
<tr>
<td>933999-84-9</td>
<td>Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)</td>
<td>3.57</td>
<td>Oncorhynchus mykiss</td>
<td>Publication (2009)</td>
</tr>
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<td>1330-20-7</td>
<td>xylene</td>
<td>&gt; 5.5 - &lt; 12.2</td>
<td>Oncorhynchus mykiss</td>
<td>Appl. Sci. Branch, E</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Further information

Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations
Dispose of waste according to applicable legislation.

Contaminated packaging
Non-contaminated packages may be recycled. Dispose of waste according to applicable legislation.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 3082
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin)
14.3. Transport hazard class(es): 9
14.4. Packing group: III
Hazard label: 9
Classification code: M6
Special Provisions: 274 335 375 601
Limited quantity: 5 L
Exceptioned quantity: E1
Transport category: 3
Hazard No: 90
Tunnel restriction code: -

Inland waterways transport (ADN)
14.1. UN number: UN 3082
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin)

14.3. Transport hazard class(es): 9
14.4. Packing group: III
Hazard label: 9
Classification code: M6
Special Provisions: 274 335 375 601
Limited quantity: 5 L
Exceptioned quantity: E1

Marine transport (IMDG)
14.1. UN number: UN 3082
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin)

14.3. Transport hazard class(es): 9
14.4. Packing group: III
Hazard label: 9
Special Provisions: 274, 335, 969
Limited quantity: 5 L
Exceptioned quantity: E1
EmS: F-A, S-F

Air transport (ICAO-TI/ATA-DGR)
14.1. UN number: UN 3082
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin)

14.3. Transport hazard class(es): 9
14.4. Packing group: III
Hazard label: 9
Special Provisions: A97 A158 A197
Limited quantity Passenger: 30 kg G
Passenger LQ: Y964
Exceptioned quantity: E1
Safety Data Sheet

according to Regulation (EC) No 1907/2006

<table>
<thead>
<tr>
<th>Proguard CN 200 a.s. Part A</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revision date:</strong> 09.12.2019</td>
</tr>
</tbody>
</table>

IATA-packing instructions - Passenger: 964
IATA-max. quantity - Passenger: 450 L
IATA-packing instructions - Cargo: 964
IATA-max. quantity - Cargo: 450 L

14.5. Environmental hazards
ENVIRONMENTALLY HAZARDOUS: yes
Danger releasing substance: epoxy resin

14.6. Special precautions for user
No information available.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
No information available.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
National regulatory information
Employment restrictions: Observe restrictions to employment for juvenils 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. Observe employment restrictions for women of child-bearing age.

Water contaminating class (D): 2 - clearly water contaminating

15.2. Chemical safety assessment
For the following substances of this mixture a chemical safety assessment has been carried out:
- bis-[4-(2,3-epoxipropoxy)phenyl]propane
- Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)
- 4-methylpentan-2-one, isobutyl methyl ketone
- xylene

SECTION 16: Other information

Abbreviations and acronyms
- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- RID: Règlement international conernat le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- IATA-DGR: Dangerous Goods Refulations by the "International Air Transport Association" (IATA)
- ICAO: International Civil Aviation Organization
- ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
Safety Data Sheet

according to Regulation (EC) No 1907/2006

Proguard CN 200 a.s. Part A

Revision date: 09.12.2019

CLP: Classification, labelling and Packaging
REACH: Registration, Evaluation and Authorization of Chemicals
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
UN: United Nations
CAS: Chemical Abstracts Service
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration
ATE: Acute toxicity estimate
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
LL50: Lethal loading, 50%
EL50: Effect loading, 50%
EC50: Effective Concentration 50%
ErC50: Effective Concentration 50%, growth rate
NOEC: No Observed Effect Concentration
BCF: Bio-concentration factor
PBT: persistent, bioaccumulative, toxic
vPvB: very persistent, very bioaccumulative
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
IBC: Intermediate Bulk Container
SVHC: Substance of Very High Concern

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

<table>
<thead>
<tr>
<th>Classification</th>
<th>Classification procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Irrit. 2; H315</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Eye Irrit. 2; H319</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Skin Sens. 1; H317</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Aquatic Chronic 2; H411</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

Relevant H and EUH statements (number and full text)

H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.
EUH066 Repeated exposure may cause skin dryness or cracking.
EUH205 Contains epoxy constituents. May produce an allergic reaction.

Further 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.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)