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

1.1. Product identifier

Proguard CN-OC V15 H3 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 data 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
Fax: +49 89 99 65 46 - 50
Email: eu-sds@chesterton.com
Website: www.chesterton.com
Responsible Department: +49(0) 551 - 1 92 40 (GIZ-Nord, 24h)

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 Corr. 1C
- Serious eye damage/eye irritation: Eye Dam. 1
- Respiratory or skin sensitisation: Skin Sens. 1
- Germ cell mutagenicity: Muta. 2
- Reproductive toxicity: Repr. 1B
- Hazardous to the aquatic environment: Aquatic Chronic 2
- Hazard Statements:
  - Causes severe skin burns and eye damage.
  - Causes serious eye damage.
  - May cause an allergic skin reaction.
  - Suspected of causing genetic defects.
  - May damage fertility.
  - Toxic to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008
Hazard components for labelling
- Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxy butane
- Reaction mass of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane and [2-((2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy) methyl)oxirane and [2,2'-[methylenebis(2,1-phenyleneoxymethylene)]dioxirane
- Phenol, polymer with formaldehyde, glycidether

Signal word: Danger

Pictograms:
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H341 Suspected of causing genetic defects.
- H360F May damage fertility.
- H411 Toxic to aquatic life with long lasting effects.

Precautionary statements
- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P264 Wash hands thoroughly after handling.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a POISON CENTER/doctor.

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>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxy butane</td>
<td>25-30 %</td>
</tr>
<tr>
<td>701-135-4</td>
<td>01-2120078341-60</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Muta. 2, Repr. 1B, Skin Corr. 1C, Eye Dam. 1, Skin Sens. 1B, Aquatic Chronic 2; H341 H360F H314 H318 H317 H411</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reaction mass of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane and [2-((2-[4-oxiran-2-ylmethoxy]benzyl)phenoxy)methyl]oxirane and [2,2'-[methylenebis(2,1-phenyleneoxymethylene)]dioxirane</td>
<td>25&lt;-30 %</td>
</tr>
<tr>
<td>701-263-0</td>
<td>01-2119454392-40</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skin Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H317 H411</td>
<td></td>
</tr>
<tr>
<td>28064-14-4</td>
<td>Phenol, polymer with formaldehyde, glycidether</td>
<td>15-20 %</td>
</tr>
<tr>
<td>608-164-0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>78-93-3</td>
<td>butanone; ethyl methyl ketone</td>
<td>1-3 %</td>
</tr>
<tr>
<td>201-159-0</td>
<td>606-002-00-3</td>
<td>01-2119457290-43</td>
</tr>
</tbody>
</table>

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

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

**General information**

Change contaminated, saturated clothing. 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.

**After contact with skin**

After contact with skin, wash immediately with plenty of water and soap. Seek medical advice immediately. Do not wash with: Solvents/Thinner

**After contact with eyes**

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

**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

Immediate medical treatment required because corrosive injuries that are not treated are hard to cure.
Safety Data Sheet

according to Regulation (EC) No 1907/2006

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Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours.

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

First Aid, decontamination, treatment of symptoms.
After contact with skin, wash immediately with plenty of Lutrol.

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

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

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
See section 8. Wear personal protection equipment (refer to section 8). Keep container tightly closed.
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.

Hints on joint storage
Keep away from:
- Food and feedingstuffs
- Oxidising agent

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

7.3. Specific end use(s)
No information 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>fibres/ml</th>
<th>Category</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>78-93-3</td>
<td>Butan-2-one (methyl ethyl ketone)</td>
<td>200</td>
<td>600</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>300</td>
<td>899</td>
<td></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>78-93-3</td>
<td>Butan-2-one</td>
<td>butan-2-one</td>
<td>70 µmol/L</td>
<td>urine</td>
<td>Post shift</td>
</tr>
</tbody>
</table>
### DNEL/DMEL values

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>Exposure route</th>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxy butane</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
<td>1,17 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Worker DNEL, long-term</td>
<td>dermal</td>
<td>systemic</td>
<td>0,67 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td>Reaction mass of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane and [2-{2-[4-(oxiran-2-y1methoxy)benzyl]phenoxy] methyl]oxirane and [2,2'-[methylenebis(2,1-phenyleneoxymethylene)]dioxirane</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
<td>29,39 mg/m³</td>
</tr>
<tr>
<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>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>local</td>
<td>0,0083 mg/m³</td>
</tr>
<tr>
<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>Consumer DNEL, long-term</td>
<td>oral</td>
<td>systemic</td>
<td>6,25 mg/kg bw/day</td>
</tr>
<tr>
<td>28064-14-4</td>
<td>Phenol, polymer with formaldehyde, glycidether</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Worker DNEL,</td>
<td>dermal</td>
<td>systemic</td>
<td>104,15 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td>Worker DNEL,</td>
<td>inhalation</td>
<td></td>
<td>29,39 mg/m³</td>
</tr>
<tr>
<td>78-93-3</td>
<td>butanone; ethyl methyl ketone</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>oral</td>
<td>systemic</td>
<td>31 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>dermal</td>
<td>systemic</td>
<td>412 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
<td>106 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
<td>600 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Worker DNEL, long-term</td>
<td>dermal</td>
<td>systemic</td>
<td>1161 mg/kg bw/day</td>
</tr>
</tbody>
</table>
PNEC values

<table>
<thead>
<tr>
<th>Substance</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2- ((2,3-epoxypropoxy)methyl)-2-hydroxy butane</td>
<td></td>
</tr>
<tr>
<td>Freshwater</td>
<td>0.004 mg/l</td>
</tr>
<tr>
<td>Freshwater (intermittent releases)</td>
<td>0.037 mg/l</td>
</tr>
<tr>
<td>Freshwater sediment</td>
<td>0.02 mg/kg</td>
</tr>
<tr>
<td>Marine sediment</td>
<td>0.002 mg/kg</td>
</tr>
<tr>
<td>Soil</td>
<td>0.002 mg/kg</td>
</tr>
<tr>
<td>Reaction mass of 2,2'-(methylenebis(4,1-phenyleneoxymethylene))dioxirane and 2-((2-((oxiran-2-ylmethoxy)benzyl)(phenoxymethylene)methyl)oxirane and 2,2'-(methylenebis(2,1-phenyleneoxymethylene))dioxirane</td>
<td></td>
</tr>
<tr>
<td>Freshwater</td>
<td>0.003 mg/l</td>
</tr>
<tr>
<td>Freshwater sediment</td>
<td>0.294 mg/kg</td>
</tr>
<tr>
<td>Marine sediment</td>
<td>0.029 mg/kg</td>
</tr>
<tr>
<td>Soil</td>
<td>0.237 mg/kg</td>
</tr>
<tr>
<td>78-93-3 butanone; ethyl methyl ketone</td>
<td></td>
</tr>
<tr>
<td>Freshwater</td>
<td>55.8 mg/l</td>
</tr>
<tr>
<td>Freshwater (intermittent releases)</td>
<td>55.8 mg/l</td>
</tr>
<tr>
<td>Marine water</td>
<td>55.8 mg/l</td>
</tr>
<tr>
<td>Freshwater sediment</td>
<td>284.74 mg/kg</td>
</tr>
<tr>
<td>Marine sediment</td>
<td>284.7 mg/kg</td>
</tr>
<tr>
<td>Secondary poisoning</td>
<td>1000 mg/kg</td>
</tr>
<tr>
<td>Micro-organisms in sewage treatment plants (STP)</td>
<td>709 mg/l</td>
</tr>
<tr>
<td>Soil</td>
<td>22.5 mg/kg</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
**SECTION 9: Physical and chemical properties**

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>black</td>
</tr>
<tr>
<td>Odour</td>
<td>characteristic</td>
</tr>
<tr>
<td>pH-Value</td>
<td>No data available</td>
</tr>
</tbody>
</table>

Changes in the physical state

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No data available</td>
</tr>
<tr>
<td>Sublimation point</td>
<td>No data available</td>
</tr>
<tr>
<td>Softening point</td>
<td>No data available</td>
</tr>
<tr>
<td>Pour point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 100 °C</td>
</tr>
</tbody>
</table>

Flammability

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid</td>
<td>No data available</td>
</tr>
<tr>
<td>Gas</td>
<td>No data available</td>
</tr>
</tbody>
</table>

Explosive properties

No information available.

Auto-ignition temperature

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid</td>
<td>No data available</td>
</tr>
<tr>
<td>Gas</td>
<td>No data available</td>
</tr>
</tbody>
</table>
**Decomposition temperature:**
No data available

**Oxidizing properties**
No information available.

**Vapour pressure:**
No data available

**Density (at 20 °C):**
~1.3 g/cm³

**Water solubility:**
No data available

**Solubility in other solvents**
No information available.

**Partition coefficient:**
No data available

**Viscosity / dynamic:**
No data available

**Vapour density:**
No data available

**Evaporation rate:**
No data available

**9.2. Other information**
No information available.

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**
The product is stable under storage at normal ambient temperatures.

**10.2. Chemical stability**
The substance is chemically stable under recommended conditions of storage, use and temperature.

**10.3. Possibility of hazardous reactions**
Reacts with: Acid, Oxidising agent

**10.4. Conditions to avoid**
Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

**10.5. Incompatible materials**
Acid, Oxidising agent

**10.6. Hazardous decomposition products**
Does not decompose when used for intended uses. No known hazardous decomposition products.

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

**Acute toxicity**
Based on available data, the classification criteria are not met.
Safety Data Sheet

according to Regulation (EC) No 1907/2006

<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></td>
<td>Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxy butane</td>
<td>oral</td>
<td>LD50 mg/kg</td>
<td>3398</td>
<td>Rat</td>
<td>Other company data (1976)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50 mg/kg</td>
<td>&gt; 3170</td>
<td>Rat</td>
<td>Study report (1976)</td>
</tr>
<tr>
<td>28064-14-4</td>
<td>Phenol, polymer with formaldehyde, glycidether</td>
<td>oral</td>
<td>LD50 mg/kg</td>
<td>&gt;2000</td>
<td>Rat</td>
<td>Supplier</td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50 mg/kg</td>
<td>&gt;2000</td>
<td>Rabbit</td>
<td>Supplier</td>
</tr>
<tr>
<td>78-93-3</td>
<td>butanone; ethyl methyl ketone</td>
<td>oral</td>
<td>LD50 mg/kg</td>
<td>&gt;2000</td>
<td>Rat</td>
<td>Supplier</td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50 mg/kg</td>
<td>6400 - 8000 mg/kg</td>
<td>Rabbit</td>
<td>Supplier</td>
</tr>
<tr>
<td></td>
<td>Inhalation (4 h) aerosol</td>
<td>LC50</td>
<td>34.5 mg/l</td>
<td>Rat</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Irritation and corrosivity
- Causes severe skin burns and eye damage.
- Causes serious eye damage.

Sensitising effects
- May cause an allergic skin reaction. (Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxy butane; Reaction mass of 2,2′-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane and [2-((2-(2-{4-(oxiran-2-ylmethoxy)benzyl)phenoxy}methyl)oxirane and [2,2′-methylenebis(2,1-phenyleneoxymethylene)]dioxirane; Phenol, polymer with formaldehyde, glycidether)

Carcinogenic/mutagenic/toxic effects for reproduction
- Suspected of causing genetic defects. (Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxy butane)
- May damage fertility. (Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxy butane)
- Carcinogenicity: 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

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Source</th>
<th>Value</th>
<th>d</th>
<th>Method</th>
<th>Species</th>
<th>Study report</th>
<th>OECD Guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxy butane</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acute fish toxicity</td>
<td></td>
<td>LC50</td>
<td>75</td>
<td>mg/l</td>
<td>Cyprinus carpio</td>
<td>Study report</td>
<td>203</td>
</tr>
<tr>
<td></td>
<td>Acute algaee toxicity</td>
<td></td>
<td>ErC50</td>
<td>9</td>
<td>mg/l</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Study report</td>
<td>201</td>
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<td>Acute crustacea toxicity</td>
<td></td>
<td>EC50</td>
<td>3.7</td>
<td>mg/l</td>
<td>Daphnia magna</td>
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<td>202</td>
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<td>Acute fish toxicity</td>
<td></td>
<td>LC50</td>
<td>2.54</td>
<td>mg/l</td>
<td>Leuciscus idus (golden orfe)</td>
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<tr>
<td></td>
<td>Acute crustacea toxicity</td>
<td></td>
<td>EC50</td>
<td>2.55</td>
<td>mg/l</td>
<td>Daphnia magna (Big water flea)</td>
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</tr>
<tr>
<td></td>
<td>28064-14-4 Phenol, polymer with formaldehyde, glycidether</td>
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<td></td>
<td>LC50</td>
<td>2993</td>
<td>mg/l</td>
<td>Pimephales promelas</td>
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<td>ErC50</td>
<td>2029</td>
<td>mg/l</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Study report</td>
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<td></td>
<td>EC50</td>
<td>308</td>
<td>mg/l</td>
<td>Daphnia magna</td>
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<td>202</td>
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<tr>
<td></td>
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<td>Pseudomonas putida</td>
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### 12.2. Persistence and degradability

No information available.

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<th>Value</th>
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<tr>
<td>78-93-3</td>
<td>butanone; ethyl methyl ketone</td>
<td></td>
<td>OECD 301</td>
<td>98%</td>
<td>28</td>
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</table>

Readily biodegradable (according to OECD criteria).

### 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>
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<td>Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxy butane</td>
<td>2.93 - 2530</td>
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<tr>
<td>78-93-3</td>
<td>butanone; ethyl methyl ketone</td>
<td>0.3</td>
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</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
No information available.

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 1760
14.2. UN proper shipping name: CORROSIVE LIQUID, N.O.S. (Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-(2,3-epoxypropoxy)methyl)-2-hydroxy butane
14.3. Transport hazard class(es): 8
14.4. Packing group: III
Hazard label: 8
Classification code: C9
Special Provisions: 274
Limited quantity: 5 L
Excepted quantity: E1
Transport category: 3
Hazard No: 80
Tunnel restriction code: E

Inland waterways transport (ADN)

14.1. UN number: UN 1760
14.2. UN proper shipping name: CORROSIVE LIQUID, N.O.S. (Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-(2,3-epoxypropoxy)methyl)-2-hydroxy butane
14.3. Transport hazard class(es): 8
14.4. Packing group: III
Hazard label: 8
Classification code: C9
Special Provisions: 274
Limited quantity: 5 L
Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number: UN 1760
14.2. UN proper shipping name: CORROSIVE LIQUID, N.O.S. (Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-(2,3-epoxypropoxy)methyl)-2-hydroxy butane
14.3. Transport hazard class(es): 8
14.4. Packing group: III
Hazard label: 8
Classification code: C9
Special Provisions: 274
Limited quantity: 5 L
Excepted quantity: E1
### 14.1. UN number:
UN 1760

### 14.2. UN proper shipping name:
CORROSIVE LIQUID, N.O.S. (Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxy butane)

### 14.3. Transport hazard class(es):
8

### 14.4. Packing group:
III

- **Hazard label:** 8
- **Marine pollutant:** P
- **Special Provisions:** 223, 274
- **Limited quantity:** 5 L
- **Excepted quantity:** E1
- **EmS:** F-A, S-B
- **Segregation group:** alkalis

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

#### 14.1. UN number:
UN 1760

#### 14.2. UN proper shipping name:
CORROSIVE LIQUID, N.O.S. (Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxy butane)

#### 14.3. Transport hazard class(es):
8

#### 14.4. Packing group:
III

- **Hazard label:** 8
- **Special Provisions:** A3 A803
- **Limited quantity Passenger:** 1 L
- **Passenger LQ:** Y841
- **Excepted quantity:** E1
- **IATA-packing instructions - Passenger:** 852
- **IATA-max. quantity - Passenger:** 5 L
- **IATA-packing instructions - Cargo:** 856
- **IATA-max. quantity - Cargo:** 60 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
EU regulatory information
Safety Data Sheet

according to Regulation (EC) No 1907/2006

**Proguard CN-OC V15 H3  Part A**

Information according to 2012/18/EU (SEVESO III):

**E2** Hazardous to the Aquatic Environment

**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:

- Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxy butane


- butanone; ethyl methyl ketone

**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 concernant 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 Regulations by the "International Air Transport Association" (IATA)
- **ICAO:** International Civil Aviation Organization
- **ICAO-TI:** Technical Instructions by the "International Civil Aviation Organization" (ICAO)
- **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

Revision date: 06.12.2019

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Safety Data Sheet

according to Regulation (EC) No 1907/2006

Progard CN-OC V15 H3 Part A

Revision date: 06.12.2019

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 Corr. 1C; H314</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Eye Dam. 1; H318</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Skin Sens. 1; H317</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Muta. 2; H341</td>
<td>Calculation method</td>
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<tr>
<td>Repr. 1B; H360F</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.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H341 Suspected of causing genetic defects.
H360F May damage fertility.
H411 Toxic to aquatic life with long lasting effects.
EUH066 Repeated exposure may cause skin dryness or cracking.

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.)