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

1.1. Product identifier
Proguard M-ST2 Part A

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

Use of the substance/mixture
Colour
No data available

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
Telefax: +49 89 99 65 46 - 50
e-mail: eu-sds@chesterton.com
e-mail (Contact person): eu-sds@chesterton.com
Internet: www.chesterton.com
Responsible Department: 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:
Flammable liquid: Flam. Liq. 3
Skin corrosion/irritation: Skin Irrit. 2
Serious eye damage/eye irritation: Eye Irrit. 2
Respiratory or skin sensitisation: Skin Sens. 1A

Hazard Statements:
Flammable liquid and vapour.
Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling
2,2’-[(1-Methylethyliden)bis(4,1-phenylenoxymethylene)]bisoxiran
Phenol, 4,4’-(1-methylethylidene)bis-, polymer with 2,2’-
(1-methylethylidene)bis(4,1-phenyleneoxymethylene)bis(oxirane)
Reaction products of fatty acids, tall oil and fatty acids, C18 unsaturated, trimers and fatty acids, C18
unsaturated, dimers with (9Z)-octadec-9-en-1-amine
Signal word: Warning

Pictograms:

Hazard statements
- H226 Flammable liquid and vapour.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.

Precautionary statements
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P241 Use explosion-proof electrical/ventilating/lighting equipment.
- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P501 Dispose of contents/container to an appropriate recycling or disposal facility.

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>GHS Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1675-54-3</td>
<td>2,2’-{[(1-Methylethyliden)bis(4,1-phenylenoxymethylene)]bisoxiran}</td>
<td>20 - &lt; 25 %</td>
<td>Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1; H315 H319 H317</td>
</tr>
<tr>
<td>216-823-5</td>
<td>2,2’-{[(1-Methylethyliden)bis(4,1-phenylenoxymethylene)]bisoxiran}</td>
<td>20 - &lt; 25 %</td>
<td></td>
</tr>
<tr>
<td>25036-25-3</td>
<td>Phenol, 4,4’-(1-methyleneidene)bis-, polymer with 2,2’-((1-methyleneidene)bis(4,1-phenylenoxymethylene))bis(oxirane)</td>
<td>20 - &lt; 25 %</td>
<td></td>
</tr>
<tr>
<td>1330-20-7</td>
<td>xylene</td>
<td>7 - &lt; 10 %</td>
<td>Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1; H315 H319 H317</td>
</tr>
<tr>
<td>78-83-1</td>
<td>2-methylpropan-1-ol; iso-butanol</td>
<td>1 - &lt; 2,5 %</td>
<td>Flam. Liq. 3, Acute Tox. 4, Skin Irrit. 2, H226 H332 H312 H315</td>
</tr>
<tr>
<td>107-98-2</td>
<td>1-methoxy-2-propanol; monopropylene glycol methyl ether</td>
<td>1 - &lt; 2,5 %</td>
<td>Flam. Liq. 3, Acute Tox. 3, STOT SE 3; H226 H331 H336</td>
</tr>
<tr>
<td>64742-95-6</td>
<td>Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified</td>
<td>1 - &lt; 2,5 %</td>
<td>Flam. Liq. 3, Acute Tox. 4, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H226 H332 H335 H336 H304 H411 EUH066</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
Remove casualty to fresh air and keep warm and at rest.
If unconscious place in recovery position and seek medical advice.
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
   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.

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.
   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

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

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.

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

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

<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>107-98-2</td>
<td>1-Methoxypropan-2-ol</td>
<td>100</td>
<td>375</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>150</td>
<td>560</td>
<td></td>
<td>STEL (15 min)</td>
<td>WEL</td>
</tr>
<tr>
<td>78-83-1</td>
<td>2-Methylpropan-1-ol</td>
<td>50</td>
<td>154</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
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<tr>
<td></td>
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<td>75</td>
<td>231</td>
<td></td>
<td>STEL (15 min)</td>
<td>WEL</td>
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<tr>
<td>7429-90-5</td>
<td>Aluminium metal, respirable dust</td>
<td>-</td>
<td>4</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
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<tr>
<td>1330-20-7</td>
<td>Xylene: mixed isomers</td>
<td>50</td>
<td>220</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100</td>
<td>441</td>
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<td>STEL (15 min)</td>
<td>WEL</td>
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### Biological Monitoring Guidance Values (EH40)

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

<table>
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<tr>
<th>CAS No</th>
<th>Substance</th>
<th>Exposure route</th>
<th>Effect</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>1675-54-3</td>
<td>2,2'-[(1-Methylethyliden)bis(4,1-phenylenoxymethylen)]bisoxiran</td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>local</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>inhalation</td>
<td>local</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker DNEL, long-term</td>
<td>dermal</td>
<td>systemic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>dermal</td>
<td>systemic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>oral</td>
<td>systemic</td>
</tr>
<tr>
<td>1330-20-7</td>
<td>xylene</td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>local</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>inhalation</td>
<td>local</td>
</tr>
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<td></td>
<td></td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
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<tr>
<td></td>
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<td>Worker DNEL, acute</td>
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<td>systemic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker DNEL, acute</td>
<td>inhalation</td>
<td>local</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker DNEL, long-term</td>
<td>dermal</td>
<td>systemic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, acute</td>
<td>inhalation</td>
<td>systemic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, acute</td>
<td>inhalation</td>
<td>local</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>dermal</td>
<td>systemic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>oral</td>
<td>systemic</td>
</tr>
<tr>
<td>7429-90-5</td>
<td>aluminium powder (stabilised)</td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>local</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>oral</td>
<td>systemic</td>
</tr>
<tr>
<td>78-83-1</td>
<td>2-methylpropan-1-ol; iso-butanol</td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>local</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>inhalation</td>
<td>local</td>
</tr>
<tr>
<td>107-98-2</td>
<td>1-methoxy-2-propanol; monopropylene glycol methyl ether</td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
</tr>
</tbody>
</table>
### Proguard M-ST2 Part A

<table>
<thead>
<tr>
<th></th>
<th>Exposure Route</th>
<th>Route</th>
<th>DNEL Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Consumer DNEL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-term, inhalation</td>
<td>systemic</td>
<td></td>
<td>43.9 mg/m³</td>
</tr>
<tr>
<td>Worker, acute</td>
<td>inhalation</td>
<td>local</td>
<td>553.5 mg/m³</td>
</tr>
<tr>
<td>Worker, long-term</td>
<td>dermal</td>
<td>systemic</td>
<td>183 mg/kg bw/day</td>
</tr>
<tr>
<td>Consumer, long-term</td>
<td>dermal</td>
<td>systemic</td>
<td>78 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td>oral</td>
<td>systemic</td>
<td>33 mg/kg bw/day</td>
</tr>
<tr>
<td><strong>Worker DNEL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute, inhalation</td>
<td>systemic</td>
<td></td>
<td>1286.4 mg/m³</td>
</tr>
<tr>
<td>Acute, long-term</td>
<td>inhalation</td>
<td>local</td>
<td>837.5 mg/m³</td>
</tr>
<tr>
<td>Acute, dermal</td>
<td>systemic</td>
<td></td>
<td>1152 mg/m³</td>
</tr>
<tr>
<td>Acute, local</td>
<td>inhalation</td>
<td>local</td>
<td>178.57 mg/m³</td>
</tr>
<tr>
<td>Acute, oral</td>
<td>inhalation</td>
<td>local</td>
<td>640 mg/m³</td>
</tr>
<tr>
<td><strong>Consumer DNEL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute, inhalation</td>
<td>systemic</td>
<td></td>
<td>0.75 mg/m³</td>
</tr>
<tr>
<td>Acute, dermal</td>
<td>systemic</td>
<td></td>
<td>0.43 mg/kg bw/day</td>
</tr>
<tr>
<td>Long-term, inhalation</td>
<td>systemic</td>
<td></td>
<td>0.37 mg/m³</td>
</tr>
<tr>
<td>Acute, dermal</td>
<td>systemic</td>
<td></td>
<td>0.21 mg/kg bw/day</td>
</tr>
<tr>
<td>Acute, oral</td>
<td>systemic</td>
<td></td>
<td>0.11 mg/kg bw/day</td>
</tr>
</tbody>
</table>

**64742-95-6** Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified

<table>
<thead>
<tr>
<th></th>
<th>Exposure Route</th>
<th>Route</th>
<th>DNEL Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Worker DNEL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute, inhalation</td>
<td>systemic</td>
<td></td>
<td>1286.4 mg/m³</td>
</tr>
<tr>
<td>Long-term, inhalation</td>
<td>local</td>
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<td>837.5 mg/m³</td>
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<tr>
<td>Acute, dermal</td>
<td>systemic</td>
<td></td>
<td>1152 mg/m³</td>
</tr>
<tr>
<td>Acute, local</td>
<td>inhalation</td>
<td>local</td>
<td>178.57 mg/m³</td>
</tr>
<tr>
<td>Acute, oral</td>
<td>inhalation</td>
<td>local</td>
<td>640 mg/m³</td>
</tr>
</tbody>
</table>

**Reaction products of fatty acids, tall oil and fatty acids, C18 unsaturated, trimers and fatty acids, C18 unsaturated, dimers with (9Z)-octadec-9-en-1-amine**

<table>
<thead>
<tr>
<th></th>
<th>Exposure Route</th>
<th>Route</th>
<th>DNEL Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Worker DNEL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute, inhalation</td>
<td>systemic</td>
<td></td>
<td>0.75 mg/m³</td>
</tr>
<tr>
<td>Acute, dermal</td>
<td>systemic</td>
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<td>0.43 mg/kg bw/day</td>
</tr>
<tr>
<td>Long-term, inhalation</td>
<td>systemic</td>
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<td>0.37 mg/m³</td>
</tr>
<tr>
<td>Acute, dermal</td>
<td>systemic</td>
<td></td>
<td>0.21 mg/kg bw/day</td>
</tr>
<tr>
<td>Acute, oral</td>
<td>systemic</td>
<td></td>
<td>0.11 mg/kg bw/day</td>
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**PNEC values**

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<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>Environmental compartment</th>
<th>Value</th>
</tr>
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<tbody>
<tr>
<td>1675-54-3</td>
<td>2,2′-[(1-Methylethylidene)bis(4,1-phenylenoxymethylen)]bisoxiran</td>
<td>Freshwater</td>
<td>0,006 mg/l</td>
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<tr>
<td></td>
<td></td>
<td>Freshwater (intermittent releases)</td>
<td>0,018 mg/l</td>
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<td></td>
<td>Marine water</td>
<td>0,001 mg/l</td>
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<td></td>
<td>Freshwater sediment</td>
<td>0,341 mg/kg</td>
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<td></td>
<td>Marine sediment</td>
<td>0,034 mg/kg</td>
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<tr>
<td></td>
<td></td>
<td>Secondary poisoning</td>
<td>11 mg/kg</td>
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<td></td>
<td></td>
<td>Micro-organisms in sewage treatment plants (STP)</td>
<td>10 mg/l</td>
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<tr>
<td></td>
<td></td>
<td>Soil</td>
<td>0,065 mg/kg</td>
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<tr>
<td>1330-20-7</td>
<td>xylene</td>
<td>Freshwater</td>
<td>0,327 mg/l</td>
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<td></td>
<td>Freshwater (intermittent releases)</td>
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<td>Marine water</td>
<td>0,327 mg/l</td>
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<td></td>
<td>Freshwater sediment</td>
<td>12,46 mg/kg</td>
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<td>Marine sediment</td>
<td>12,46 mg/kg</td>
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<td>Micro-organisms in sewage treatment plants (STP)</td>
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<td>2,31 mg/kg</td>
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<td>aluminium powder (stabilised)</td>
<td>Freshwater</td>
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<td>Micro-organisms in sewage treatment plants (STP)</td>
<td>20 mg/l</td>
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<td>78-83-1</td>
<td>2-methylpropan-1-ol; iso-butanol</td>
<td>Freshwater</td>
<td>0,4 mg/l</td>
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<td>Freshwater (intermittent releases)</td>
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<td></td>
<td>Freshwater sediment</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Marine sediment</td>
<td>0,156 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>0,076 mg/kg</td>
</tr>
<tr>
<td>107-98-2</td>
<td>1-methoxy-2-propanol; monopropylene glycol methyl ether</td>
<td>Freshwater</td>
<td>10 mg/l</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Freshwater (intermittent releases)</td>
<td>100 mg/l</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Marine water</td>
<td>1 mg/l</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Freshwater sediment</td>
<td>52,3 mg/kg</td>
</tr>
</tbody>
</table>
Safety Data Sheet

according to Regulation (EC) No 1907/2006

<table>
<thead>
<tr>
<th>Marine sediment</th>
<th>5.2 mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro-organisms in sewage treatment plants (STP)</td>
<td>100 mg/l</td>
</tr>
<tr>
<td>Soil</td>
<td>4.59 mg/kg</td>
</tr>
<tr>
<td>Reaction products of fatty acids, tall oil and fatty acids, C18 unsaturated, trimers and fatty acids, C18 unsaturated, dimers with (9Z)-octadec-9-en-1-amine</td>
<td></td>
</tr>
<tr>
<td>Freshwater</td>
<td>0.194 mg/l</td>
</tr>
<tr>
<td>Freshwater (intermittent releases)</td>
<td>0.097 mg/l</td>
</tr>
<tr>
<td>Marine water</td>
<td>0.019 mg/l</td>
</tr>
<tr>
<td>Freshwater sediment</td>
<td>29.6 mg/kg</td>
</tr>
<tr>
<td>Marine sediment</td>
<td>2.96 mg/kg</td>
</tr>
<tr>
<td>Secondary poisoning</td>
<td>0.416 mg/kg</td>
</tr>
<tr>
<td>Micro-organisms in sewage treatment plants (STP)</td>
<td>100 mg/l</td>
</tr>
<tr>
<td>Soil</td>
<td>120 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.
- When using do not eat, drink, smoke, sniff.

Eye/face 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

Respiratory protection
- If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.
  - Combination filtering device (EN 14387) ABEK-P2
  - Self-contained respirator (breathing apparatus) (DIN EN 133)
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>various</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

- Melting point: No data available
- Initial boiling point and boiling range: 137 - 143 °C
- Sublimation point: No data available
- Softening point: No data available
- Pour point: No data available
- Flash point: 30 °C

Flammability

- Solid: No data available
- Gas: No data available

Explosive properties

- not explosive according to EU A.14
- Vapours can form explosive mixtures with air.

- Lower explosion limits: 1,1
- Upper explosion limits: 7
- Ignition temperature: 500 °C

Auto-ignition temperature

- Solid: No data available
- Gas: No data available

Decomposition temperature: No data available

Oxidizing properties

- Not oxidising.

Vapour pressure:

- (at 20 °C): No data available

Density (at 20 °C):

- 1.54 g/cm³

Water solubility:

- Immiscible

Solubility in other solvents

- No information available.

Partition coefficient: No data available

Viscosity / dynamic: No data available
Viscosity / kinematic: 100 mm²/s
(at 20 °C)
Vapour density: No data available
Evaporation rate: No data available
Solvent content: 15.5

9.2. Other information
Solid content: 83.1
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
No information available.

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

10.5. Incompatible materials
No information available.

10.6. Hazardous decomposition products
No information available.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity
Based on available data, the classification criteria are not met.
### Proguard M-ST2 Part A

**Chemical name:** 2,2’-[(1-Methylethyliden)bis(4,1-phenylenoxymethylen)]bisoxiran  
**CAS No:** 1675-54-3  
**Exposure route:**  
- **oral**  
  - LD$_{50}$: 19800 mg/kg  
  - Species: Rabbit  
  - Source: Publication (1958)  
  - Method: Rabbits were orally gavaged with test ma  
- **dermal**  
  - LD$_{50}$: > 2000 mg/kg  
  - Species: Rat  
  - Study report (2007)  
  - OECD Guideline 402  
- **inhalation (4 h) vapour**  
  - LC$_{50}$: ca. 24,6 mg/l  
  - Species: Rat  
  - AMA Arch. Ind. Hyg. Occ. Med. 10: 61-68  
  - Method: Rats were exposed to 8000 ppm of the tes  

**Chemical name:** xylene  
**CAS No:** 1330-20-7  
**Exposure route:**  
- **oral**  
  - LD$_{50}$: 3523 mg/kg  
  - Species: Rat  
  - Study report (1986)  
  - Method: EU Method B.1  
- **dermal**  
  - LD$_{50}$: 12126 mg/kg  
  - Species: Rabbit  
  - Publication (1962)  
  - Single dermal dose under occlusion follo  
- **inhalation (4 h) vapour**  
  - LC$_{50}$: 6700 mg/l  
  - Species: Rat  
  - Method: EU Method B.2  
- **inhalation aerosol**  
  - ATE: 1,5 mg/l  

**Chemical name:** 2-methylpropan-1-ol; iso-butanol  
**CAS No:** 78-83-1  
**Exposure route:**  
- **oral**  
  - LD$_{50}$: 3350 mg/kg  
  - Species: Rat  
  - Study report (1993)  
  - Method: EPA OTS 798.1175  
- **dermal**  
  - LD$_{50}$: 2460 mg/kg  
  - Species: Rabbit  
  - Study report (1993)  
  - Method: EPA OTS 798.1100  
- **inhalation (4 h) vapour**  
  - LC$_{50}$: ca. 24,6 mg/l  
  - Species: Rat  
  - AMA Arch. Ind. Hyg. Occ. Med. 10: 61-68  
  - Method: Rats were exposed to 8000 ppm of the tes  

**Chemical name:** 1-methoxy-2-propanol; monopropylene glycol methyl ether  
**CAS No:** 107-98-2  
**Exposure route:**  
- **oral**  
  - LD$_{50}$: 4277 mg/kg  
  - Species: Rat  
  - Study report (1985)  
  - Method: EU Method B.1  
- **dermal**  
  - LD$_{50}$: > 2000 mg/kg  
  - Species: Rat  
  - Study report (1985)  
  - Method: EU Method B.3  
- **inhalation (4 h) vapour**  
  - LC$_{50}$: >20 mg/l  
  - Species: Rat  
- **inhalation aerosol**  
  - ATE: 0.5 mg/l  

**Chemical name:** Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified  
**CAS No:** 64742-95-6  
**Exposure route:**  
- **oral**  
  - LD$_{50}$: > 5000 mg/kg  
  - Species: Rat  
  - Study report (1986)  
  - Method: OECD Guideline 401  
- **dermal**  
  - LD$_{50}$: > 2000 mg/kg  
  - Species: Rabbit  
  - Study report (1986)  
  - Method: OECD Guideline 402  
- **inhalation (4 h) vapour**  
  - LC$_{50}$: > 4,96 mg/l  
  - Species: Rat  
  - Study report (1992)  
  - OECD Guideline 403  
- **inhalation aerosol**  
  - ATE: 1,5 mg/l  

Reaction products of fatty acids, tall oil and fatty acids, C18 unsaturated, trimers and fatty acids, C18 unsaturated, dimers with (9Z)-octadec-9-en-1-amine
Irritation and corrosivity
Causes skin irritation.
Causes serious eye irritation.

Sensitising effects
May cause an allergic skin reaction. (2,2’-[(1-Methylethyliden)bis(4,1-phenylenoxymethylene)]bisoxiran; Phenol, 4,4’-(1-methylethylidene)bis-, polymer with 2,2’-((1-methylethylidene)bis(4,1-phenyleneoxymethylene))bis(oxirane); Reaction products of fatty acids, tall oil and fatty acids, C18 unsaturated, trimers and fatty acids, C18 unsaturated, dimers with (9Z)-octadec-9-en-1-amine)

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
<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Aquatic toxicity</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>2,2’-[(1-Methylethyliden)bis(4,1-phenyloxymethylen)]bisoxiran</td>
<td>Acute fish toxicity</td>
<td>LC50</td>
<td>3,6 mg/l</td>
<td>96 h</td>
<td>Oncorhynchus mykiss</td>
<td>Study report (1982)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute algae toxicity</td>
<td>ErC50</td>
<td>&gt; 100 mg/l</td>
<td>72 h</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Study report (2007)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute crustacea toxicity</td>
<td>EC50</td>
<td>2,8 mg/l</td>
<td>48 h</td>
<td>Daphnia magna</td>
<td>REACh Registration Dossier</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Crustacea toxicity</td>
<td>NOEC</td>
<td>0,3 mg/l</td>
<td>21 d</td>
<td>Daphnia magna</td>
<td>REACh Registration Dossier</td>
</tr>
<tr>
<td>1330-20-7</td>
<td>xylene</td>
<td>Acute fish toxicity</td>
<td>LC50</td>
<td>8,4 mg/l</td>
<td>96 h</td>
<td>Oncorhynchus mykiss</td>
<td>Ecotoxicology and Environmental Safety</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute algae toxicity</td>
<td>ErC50</td>
<td>4,9 mg/l</td>
<td>72 h</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Ecotoxicology and Environmental Safety</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute crustacea toxicity</td>
<td>EC50</td>
<td>&gt; 3,4 mg/l</td>
<td>48 h</td>
<td>Ceriodaphnia dubia</td>
<td>Ecotoxicology and Environmental Safety</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fish toxicity</td>
<td>NOEC</td>
<td>&gt; 1,3 mg/l</td>
<td>56 d</td>
<td>Oncorhynchus mykiss</td>
<td>Appl. Sci. Branch, Eng. Res. Cent. Denver</td>
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<tr>
<td></td>
<td></td>
<td>Crustacea toxicity</td>
<td>NOEC</td>
<td>1,17 mg/l</td>
<td>7 d</td>
<td>Ceriodaphnia dubia</td>
<td>Ecotoxicology and Environmental Safety</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute bacteria toxicity</td>
<td>(&gt; 175 mg/l)</td>
<td>0,5 h</td>
<td>Activated sludge</td>
<td>Research Journal WPCF 60(10) 1850-1856 (1995)</td>
<td>OECD Guideline 209</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute algae toxicity</td>
<td>ErC50</td>
<td>1799 mg/l</td>
<td>72 h</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Study report (2007)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute crustacea toxicity</td>
<td>EC50</td>
<td>1100 mg/l</td>
<td>48 h</td>
<td>Daphnia pulex</td>
<td>Environmental Toxicology and Chemistry 5</td>
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<td></td>
<td></td>
<td>Crustacea toxicity</td>
<td>NOEC</td>
<td>20 mg/l</td>
<td>21 d</td>
<td>Daphnia magna</td>
<td>Water Res. 23(4): 501-510 (1989)</td>
</tr>
<tr>
<td>107-98-2</td>
<td>1-methoxy-2-propanol; monopropylene glycol methyl ether</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
12.2. Persistence and degradability

No information available.

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Method</th>
<th>Value</th>
<th>d</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1675-54-3</td>
<td>2,2´-[(1-Methylethyliden)bis(4,1-phenylenoxymethylene)]bisoxiran</td>
<td></td>
<td></td>
<td>12%</td>
<td>28</td>
</tr>
</tbody>
</table>

Not readily biodegradable (according to OECD criteria)

12.3. Bioaccumulative potential
Partition coefficient n-octanol/water

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>1675-54-3</td>
<td>2,2′-[(1-Methylethyliden)bis(4,1-phenylenoxy)benzene]bisoxiran</td>
<td>&gt;= 2.64</td>
</tr>
<tr>
<td>1330-20-7</td>
<td>xylene</td>
<td>3.2</td>
</tr>
<tr>
<td>78-83-1</td>
<td>2-methylpropan-1-ol; iso-butanol</td>
<td>10</td>
</tr>
<tr>
<td>107-98-2</td>
<td>1-methoxy-2-propanol; monopropylene glycol methyl ether</td>
<td>&lt; 1</td>
</tr>
<tr>
<td></td>
<td>Reaction products of fatty acids, tall oil and fatty acids, C18 unsaturated, trimers and fatty acids, C18 unsaturated, dimers with (9Z)-octadec-9-en-1-amine</td>
<td>13.18</td>
</tr>
</tbody>
</table>

BCF

<table>
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<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>BCF</th>
<th>Species</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<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>
<tr>
<td></td>
<td>Reaction products of fatty acids, tall oil and fatty acids, C18 unsaturated, trimers and fatty acids, C18 unsaturated, dimers with (9Z)-octadec-9-en-1-amine</td>
<td>0.871</td>
<td>Catalogic calculation</td>
<td></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
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 1263
14.2. UN proper shipping name: Paint
14.3. Transport hazard class(es): 3
14.4. Packing group: III
### Proguard M-ST2 Part A

**Revision date:** 03.04.2020  
**Page:** 18 of 21

<table>
<thead>
<tr>
<th>Classification code:</th>
<th>F1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special Provisions:</td>
<td>163 367 650</td>
</tr>
<tr>
<td>Limited quantity:</td>
<td>5 L</td>
</tr>
<tr>
<td>Excepted quantity:</td>
<td>E1</td>
</tr>
<tr>
<td>Transport category:</td>
<td>3</td>
</tr>
<tr>
<td>Hazard No:</td>
<td>30</td>
</tr>
<tr>
<td>Tunnel restriction code:</td>
<td>D/E</td>
</tr>
</tbody>
</table>

#### Inland waterways transport (ADN)
- **14.1. UN number:** UN 1263  
- **14.2. UN proper shipping name:** Paint  
- **14.3. Transport hazard class(es):** 3  
- **14.4. Packing group:** III  
- **Hazard label:** 3  
- **Classification code:** F1  
- **Special Provisions:** 163 367 650  
- **Limited quantity:** 5 L  
- **Excepted quantity:** E1

#### Marine transport (IMDG)
- **14.1. UN number:** UN 1263  
- **14.2. UN proper shipping name:** Paint  
- **14.3. Transport hazard class(es):** 3  
- **14.4. Packing group:** III  
- **Hazard label:** 3  
- **Marine pollutant:** P  
- **Special Provisions:** 163, 223, 367, 955  
- **Limited quantity:** 5 L  
- **Excepted quantity:** E1  
- **EmS:** F-E, S-E

#### Air transport (ICAO-TI/IATA-DGR)
- **14.1. UN number:** UN 1263  
- **14.2. UN proper shipping name:** Paint  
- **14.3. Transport hazard class(es):** 3  
- **14.4. Packing group:** III  
- **Hazard label:** 3  
- **Special Provisions:** A3 A72 A192  
- **Limited quantity Passenger:** 10 L  
- **Passenger LQ:** Y344  
- **Excepted quantity:** E1  
- **IATA-packing instructions - Passenger:** 355  
- **IATA-max. quantity - Passenger:** 60 L  
- **IATA-packing instructions - Cargo:** 366  
- **IATA-max. quantity - Cargo:** 220 L
14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no
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

Restrictions on use (REACH, annex XVII):
Entry 3: 2-methylpropan-1-ol; iso-butanol
2010/75/EU (VOC): 15,5
2004/42/EC (VOC): 15,5

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 hazard class (D): 2 - obviously hazardous to water

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:
2,2´-[(1-Methylethyliden)bis(4,1-phenylenoxymethylene)]bisoxiran
Phenol, 4,4´-(1-methylethylidene)bis-, polymer with 2,2´-
((1-methylethylidene)bis(4,1-phényleneoxy)methane)bis(oxyrane)
xylene
aluminium powder (stabilised)
2-methylpropan-1-ol; iso-butanol
1-methoxy-2-propanol; monopropylene glycol methyl ether
Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified
Reaction products of fatty acids, tall oil and fatty acids, C18 unsaturated, trimers and fatty acids, C18 unsaturated, dimers with (9Z)-octadec-9-en-1-amine

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)
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>Flam. Liq. 3; H226</td>
<td>On basis of test data</td>
</tr>
<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. 1A; H317</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

Relevant H and EUH statements (number and full text)

- **H226**: Flammable liquid and vapour.
- **H302**: Harmful if swallowed.
- **H304**: May be fatal if swallowed and enters airways.
- **H312**: Harmful in contact with skin.
- **H315**: Causes skin irritation.
- **H317**: May cause an allergic skin reaction.
- **H318**: Causes serious eye damage.
- **H319**: Causes serious eye irritation.
- **H331**: Toxic if inhaled.
- **H332**: Harmful if inhaled.
Safety Data Sheet

according to Regulation (EC) No 1907/2006

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>H335</td>
<td>May cause respiratory 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 through prolonged or repeated exposure.</td>
</tr>
<tr>
<td>H411</td>
<td>Toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>EUH066</td>
<td>Repeated exposure may cause skin dryness or cracking.</td>
</tr>
</tbody>
</table>

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.*