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

1.1 Product identifier
   Identification of the substance: Azelaic acid
   1.1.2 Trade name: Azepur 99
   EC number: 204-669-1
   CAS number: 123-99-9

1.2 Relevant identified uses of the substance or mixture and uses advised against
   Relevant identified uses:
   - Cosmetics
   - Pharmaceuticals
   - Skin lightening, anti acne, treatment rosacea and haircare

1.3 Details of the supplier of the safety data sheet
   Azelaic Products BV
   Mussenberg 1
   6049 GR Roermond
   Telephone: +31475782540
   e-mail: info@azelaic.com
   Website: www.azelaic.com
   e-mail (competent person): info@azelaic.com

1.4 Emergency telephone number
   Poison centre
<table>
<thead>
<tr>
<th>Country</th>
<th>Name</th>
<th>Telephone</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
<td>National Poisons Information Service (NPIS) (medical professionals only)</td>
<td>0344-8920111</td>
</tr>
</tbody>
</table>

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
   Classification according to Regulation (EC) No 1272/2008 (CLP)

<table>
<thead>
<tr>
<th>Section</th>
<th>Hazard class</th>
<th>Category</th>
<th>Hazard class and category</th>
<th>Hazard statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2</td>
<td>skin corrosion/irritation</td>
<td>2</td>
<td>Skin Irrit. 2</td>
<td>H315</td>
</tr>
<tr>
<td>3.3</td>
<td>serious eye damage/eye irritation</td>
<td>2</td>
<td>Eye Irrit. 2</td>
<td>H319</td>
</tr>
</tbody>
</table>

   For full text of abbreviations: see SECTION 16.

2.2 Label elements
   Labelling according to Regulation (EC) No 1272/2008 (CLP)
   - signal word: warning
According to the results of its assessment, this substance is not a PBT or a vPvB. Dust explosion hazards.

Our azelaic acid is 100% based on vegetable oil (Sunflower oil or distel oil/ cardiano mariano).

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered.

Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Provide fresh air. If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician.

SECTION 3: Composition/information on ingredients

3.1 Substances

Name of substance: Azelaic acid

Identifiers
- REACH Reg. No: 01-2119557891-28-xxxx
- CAS No: 123-99-9
- EC No: 204-669-1
- Molecular formula: C9H16O4
- Molar mass: 188.2 g/mol

Remarks
- Our azelaic acid is 100% based on vegetable oil (Sunflower oil or distel oil/ cardiano mariano).

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes
- Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered.
- Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation
- Provide fresh air. If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician.
Following skin contact
Brush off loose particles from skin. Rinse skin with water/shower.

Following eye contact
Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart.

Following ingestion
Rinse mouth with water (only if the person is conscious).

4.2 Most important symptoms and effects, both acute and delayed
Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed
For specialist advice physicians should contact the anti poison control centre.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media
Water; Foam; Alcohol resistant foam; Dry extinguishing powder; ABC-powder; Foam

Unsuitable extinguishing media
Water jet.

5.2 Special hazards arising from the substance or mixture
Deposited combustible dust has considerable explosion potential.

Hazardous combustion products
During fire hazardous fumes/smoke could be produced.

5.3 Advice for firefighters
In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters
Self-contained breathing apparatus (EN 133). Standard protective clothing for firefighters.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
For non-emergency personnel
Remove persons to safety. Ventilate affected area. Control of dust.

For emergency responders
Wear breathing apparatus if exposed to vapours/dust/spray/gases. Use personal protective equipment as required.

6.2 Environmental precautions
Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up
Advices on how to contain a spill
Covering of drains. Take up mechanically.
Advises on how to clean up a spill
Take up mechanically. Control of dust. Only vacuum cleaners containing no ignition sources may be used for combustible
dusts.

Other information relating to spills and releases
Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections
Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see sec-

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Recommendations
- measures to prevent fire as well as aerosol and dust generation
Use local and general ventilation. Take precautionary measures against static discharge. Use only in well-ventilated areas.
Ground/bond container and receiving equipment.

- specific notes/details
Dust deposits may accumulate on all deposition surfaces in a technical room. The product in the delivered form is not dust ex-
losion capable; the enrichment of fine dust however leads to the danger of dust explosion.

Advice on general occupational hygiene
Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment be-
fore entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are
normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities
Managing of associated risks
- explosive atmospheres
Removal of dust deposits.

- flammability hazards
Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge.

- incompatible substances or mixtures
Observe hints for combined storage. Keep away from alkalis, oxidising substances, acids.

Control of effects
Protect against external exposure, such as
High temperatures. UV-radiation/sunlight.

Consideration of other advice
Store in a well-ventilated place. Keep container tightly closed.

- ventilation requirements
Use local and general ventilation.

7.3 Specific end use(s)
There is no additional information.
SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

<table>
<thead>
<tr>
<th>Country</th>
<th>Name of agent</th>
<th>CAS No</th>
<th>Nota-</th>
<th>Identifi-</th>
<th>TWA [ppm]</th>
<th>TWA [mg/m³]</th>
<th>STEL [ppm]</th>
<th>STEL [mg/m³]</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>GB</td>
<td>dust</td>
<td></td>
<td>i</td>
<td>WEL</td>
<td>10</td>
<td>10</td>
<td></td>
<td></td>
<td>EH40/2005</td>
</tr>
<tr>
<td>GB</td>
<td>dust</td>
<td></td>
<td>r</td>
<td>WEL</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
<td>EH40/2005</td>
</tr>
</tbody>
</table>

Notation
i  inhalable fraction
r  respirable fraction
STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified
TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average

Relevant DNELs/DMELs/PNECs and other threshold levels

Relevant DNELs and other threshold levels

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Threshold level</th>
<th>Protection goal, route of exposure</th>
<th>Used in</th>
<th>Exposure time</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNEL</td>
<td>17.63 mg/m³</td>
<td>human, inhalatory</td>
<td>worker (industry)</td>
<td>chronic - systemic effects</td>
</tr>
<tr>
<td>DNEL</td>
<td>10 mg/kg</td>
<td>human, dermal</td>
<td>worker (industry)</td>
<td>chronic - systemic effects</td>
</tr>
<tr>
<td>DNEL</td>
<td>4.348 mg/m³</td>
<td>human, inhalatory</td>
<td>consumer (private households)</td>
<td>chronic - systemic effects</td>
</tr>
<tr>
<td>DNEL</td>
<td>5 mg/kg</td>
<td>human, dermal</td>
<td>consumer (private households)</td>
<td>chronic - systemic effects</td>
</tr>
<tr>
<td>DNEL</td>
<td>2.5 mg/kg</td>
<td>human, oral</td>
<td>consumer (private households)</td>
<td>chronic - systemic effects</td>
</tr>
</tbody>
</table>

Relevant PNECs and other threshold levels

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Threshold level</th>
<th>Organism</th>
<th>Environmental compartment</th>
<th>Exposure time</th>
</tr>
</thead>
<tbody>
<tr>
<td>PNEC</td>
<td>0.02 mg/l</td>
<td>aquatic organisms</td>
<td>freshwater</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>PNEC</td>
<td>0.002 mg/l</td>
<td>aquatic organisms</td>
<td>marine water</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>PNEC</td>
<td>0.16 mg/l</td>
<td>aquatic organisms</td>
<td>water</td>
<td>intermittent release</td>
</tr>
<tr>
<td>PNEC</td>
<td>912 mg/l</td>
<td>aquatic organisms</td>
<td>sewage treatment plant (STP)</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>PNEC</td>
<td>0.093 mg/kg</td>
<td>aquatic organisms</td>
<td>freshwater sediment</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>PNEC</td>
<td>0.009 mg/kg</td>
<td>aquatic organisms</td>
<td>marine sediment</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>PNEC</td>
<td>0.007 mg/kg</td>
<td>terrestrial organisms</td>
<td>soil</td>
<td>short-term (single instance)</td>
</tr>
</tbody>
</table>
8.2 Exposure controls

Appropriate engineering controls
General ventilation.

Individual protection measures (personal protective equipment)
Eye/face protection
Use safety goggle with side protection (EN 166).

Skin protection
Protective clothing (EN 340).

- Hand protection
Chemical protection gloves are suitable, which are tested according to EN 374. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

- Other protection measures
Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection
Control of dust. Avoid inhalation of the product. In case of inadequate ventilation wear respiratory protection. P2 (filters at least 94 % of airborne particles, colour code: White).

Environmental exposure controls
Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Appearance</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>solid (powder, flakes)</td>
</tr>
<tr>
<td>Colour</td>
<td>white</td>
</tr>
<tr>
<td>Odour</td>
<td>characteristic</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other safety parameters</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>pH (value)</td>
<td>not applicable</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>106.5 °C</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>357.1 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>180 °C</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>not determined</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>this material is combustible, but will not ignite readily</td>
</tr>
<tr>
<td>Explosion limits of dust clouds</td>
<td>not determined</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>not determined</td>
</tr>
</tbody>
</table>
**SECTION 10: Stability and reactivity**

### 10.1 Reactivity
This material is not reactive under normal ambient conditions.

### 10.2 Chemical stability
See below "Conditions to avoid".

### 10.3 Possibility of hazardous reactions
No known hazardous reactions.

### 10.4 Conditions to avoid
Keep away from heat.

Hints to prevent fire or explosion
- The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

### 10.5 Incompatible materials
Oxidisers.

### 10.6 Hazardous decomposition products
Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

---

**AZELAIC ACID**

**Density**
1.225 kg/m³ at 25 °C

**Vapour density**
this information is not available

**Solubility(ies)**

<table>
<thead>
<tr>
<th>Solubility</th>
<th>Property Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>- water solubility</td>
<td>1 g/l at 1 °C</td>
</tr>
</tbody>
</table>

**Partition coefficient**

<table>
<thead>
<tr>
<th>Partition</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>- n-octanol/water (log KOW)</td>
<td>1.57 (ECHA)</td>
</tr>
</tbody>
</table>

**Auto-ignition temperature**
not determined

**Viscosity**
not relevant (solid matter)

**Explosive properties**
none

**Oxidising properties**
none

---

9.2 **Other information**
Of no significance.

**Surface tension**
41.6 mN/m (23 °C) (ECHA)
11.1 Information on toxicological effects

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

Shall not be classified as acutely toxic.

GHS of the United Nations, annex 4: May be harmful in contact with skin.

<table>
<thead>
<tr>
<th>Exposure route</th>
<th>Endpoint</th>
<th>Value</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>oral</td>
<td>LD50</td>
<td>15,800 mg/kg</td>
<td>rat</td>
</tr>
<tr>
<td>inhalation: vapour</td>
<td>LC50</td>
<td>&gt;0.162 mg/l/4h</td>
<td>rat</td>
</tr>
<tr>
<td>dermal</td>
<td>LD50</td>
<td>&gt;2,000 mg/kg</td>
<td>rabbit</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

The classification criteria for this hazard class are not met. Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.
SECTION 12: Ecological information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

Aquatic toxicity (acute)

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
<th>Species</th>
<th>Exposure time</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50</td>
<td>&gt;16 mg/l</td>
<td>fish</td>
<td>96 h</td>
</tr>
<tr>
<td>EC50</td>
<td>&gt;20 mg/l</td>
<td>aquatic invertebrates</td>
<td>48 h</td>
</tr>
<tr>
<td>ErC50</td>
<td>&gt;100 mg/l</td>
<td>algae</td>
<td>72 h</td>
</tr>
</tbody>
</table>

Aquatic toxicity (chronic)

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
<th>Species</th>
<th>Exposure time</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50</td>
<td>9.8 mg/l</td>
<td>fish</td>
<td>28 d</td>
</tr>
<tr>
<td>EC50</td>
<td>0.51 mg/l</td>
<td>aquatic invertebrates</td>
<td>21 d</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability

Process of degradability

<table>
<thead>
<tr>
<th>Process</th>
<th>Degradation rate</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>oxygen depletion</td>
<td>86 %</td>
<td>30 d</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential

n-octanol/water (log KOW) 1.57 (ECHA)

BCF 249

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

12.6 Other adverse effects

Data are not available.
Endocrine disrupting potential
Not listed.
SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information
Do not empty into drains. Avoid release to the environment.

Waste treatment of containers/packagings
Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks
Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1 UN number
not subject to transport regulations

14.2 UN proper shipping name
not relevant

14.3 Transport hazard class(es)
Class -

14.4 Packing group
not relevant

14.5 Environmental hazards
non-environmentally hazardous acc. to the dangerous goods regulations

14.6 Special precautions for user
There is no additional information.

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

Information for each of the UN Model Regulations
Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)
Not subject to ADR, RID and ADN.

International Maritime Dangerous Goods Code (IMDG)
Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR)
Not subject to ICAO-IATA.

SECTION 15: Regulatory information

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

Relevant provisions of the European Union (EU)

Restrictions according to REACH, Annex XVII
Not listed.
**List of substances subject to authorisation (REACH, Annex XIV)**
Not listed.

**Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II**
not listed

**Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)**
Not listed.

**Directive 2000/60/EC establishing a framework for Community action in the field of water policy (WFD)**
Not listed.

**Regulation 98/2013/EU on the marketing and use of explosives precursors**
Not listed.

### 15.2 Chemical Safety Assessment
No Chemical Safety Assessment has been carried out for this substance by the supplier.

## SECTION 16: Other information

### Indication of changes (revised safety data sheet)

<table>
<thead>
<tr>
<th>Section</th>
<th>Former entry (text/value)</th>
<th>Actual entry (text/value)</th>
<th>Safety-relevant</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Additional information:</td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>According to the results of its assessment, this substance is not a PBT or a vPvB.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1</td>
<td>Following inhalation:</td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.</td>
<td>Following inhalation:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Provide fresh air.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician.</td>
<td></td>
</tr>
<tr>
<td>4.1</td>
<td>Following eye contact:</td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.</td>
<td>Following eye contact:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart.</td>
<td></td>
</tr>
<tr>
<td>5.1</td>
<td>Suitable extinguishing media:</td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>Water, Foam, Alcohol resistant foam, ABC-powder</td>
<td>Suitable extinguishing media:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water; Foam; Alcohol resistant foam; Dry extinguishing powder; ABC-powder; Foam</td>
<td></td>
</tr>
<tr>
<td>5.2</td>
<td>Hazardous combustion products:</td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>Carbon monoxide (CO), Carbon dioxide (CO2), During fire hazardous fumes/smoke could be produced</td>
<td>Hazardous combustion products:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>During fire hazardous fumes/smoke could be produced.</td>
<td></td>
</tr>
<tr>
<td>6.1</td>
<td>For non-emergency personnel:</td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>Remove persons to safety. Ventilate affected area. Control of dust. Keep away from sources of ignition - No smoking.</td>
<td>For non-emergency personnel:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Remove persons to safety. Ventilate affected area. Control of dust.</td>
<td></td>
</tr>
<tr>
<td>6.1</td>
<td>For emergency responders:</td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>Wear breathing apparatus if exposed to vapours/dust/spray/gases.</td>
<td>For emergency responders:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wear breathing apparatus if exposed to vapours/dust/spray/gases. Use personal protective equipment as required.</td>
<td></td>
</tr>
<tr>
<td>7.2</td>
<td>Protect against external exposure, such as:</td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>High temperatures, UV-radiation/sunlight, Static discharges</td>
<td>Protect against external exposure, such as:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>High temperatures. UV-radiation/sunlight.</td>
<td></td>
</tr>
<tr>
<td>8.1</td>
<td>Occupational exposure limit values (Workplace Exposure Limits):</td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>change in the listing (table)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Section** | **Former entry (text/value)** | **Actual entry (text/value)** | **Safety-relevant**
---|---|---|---
8.2 | Eye/face protection: eye protection must be worn Use safety goggles with side protection. | Eye/face protection: eye protection must be worn Use safety goggles with side protection (EN 166). | yes
8.2 | Skin protection | Skin protection: Protective clothing (EN 340). | yes
8.2 | Hand protection: safety gloves must be worn Chemical protection gloves are suitable, which are tested according to EN 374. | Hand protection: safety gloves must be worn Chemical protection gloves are suitable, which are tested according to EN 374. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. | yes

9.2 | Other information | Other information: Of no significance. | yes
9.2 | Solid content: 100 % | | yes
10.4 | Conditions to avoid: There are no specific conditions known which have to be avoided. | Conditions to avoid: Keep away from heat. | yes
11.1 | Acute toxicity: Shall not be classified as acutely toxic. | Acute toxicity: Shall not be classified as acutely toxic. GHS of the United Nations, annex 4: May be harmful in contact with skin. | yes
11.1 | Specific target organ toxicity - repeated exposure: Shall not be classified as a specific target organ toxicant (repeated exposure). | Specific target organ toxicity - repeated exposure: The classification criteria for this hazard class are not met. Shall not be classified as a specific target organ toxicant (repeated exposure). | yes
13.1 | Sewage disposal-relevant information: Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets. | Sewage disposal-relevant information: Do not empty into drains. Avoid release to the environment. | yes
14.5 | Environmental hazards | Environmental hazards: non-environmentally hazardous acc. to the dangerous goods regulations | yes
14.7 | Transport in bulk according to Annex II of MARPOL and the IBC Code: The cargo is not intended to be carried in bulk. | Transport in bulk according to Annex II of MARPOL and the IBC Code: No data available. | yes
15.2 | Chemical Safety Assessment: No Chemical Safety Assessment has been carried out for this substance. | Chemical Safety Assessment: No Chemical Safety Assessment has been carried out for this substance by the supplier. | yes

**Abbreviations and acronyms**

<table>
<thead>
<tr>
<th>Abbr.</th>
<th>Descriptions of used abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADN</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)</td>
</tr>
<tr>
<td>ADR</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)</td>
</tr>
<tr>
<td>BCF</td>
<td>Bioconcentration factor</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)</td>
</tr>
</tbody>
</table>
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Abbr. | Descriptions of used abbreviations
--- | ---
CLP | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR | Dangerous Goods Regulations (see IATA/DGR)
DMEL | Derived Minimal Effect Level
DNEL | Derived No-Effect Level
EC No | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EINECS | European Inventory of Existing Commercial Chemical Substances
ELINCS | European List of Notified Chemical Substances
GHS | “Globally Harmonized System of Classification and Labelling of Chemicals” developed by the United Nations
IATA | International Air Transport Association
IATA/DGR | Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO | International Civil Aviation Organization
IMDG | International Maritime Dangerous Goods Code
MARPOL | International Convention for the Prevention of Pollution from Ships (abbr. of “Marine Pollutant”)
NLP | No-Longer Polymer
PBT | Persistent, Bioaccumulative and Toxic
PNEC | Predicted No-Effect Concentration
ppm | Parts per million
REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals
RID | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
STEL | Short-term exposure limit
TWA | Time-weighted average
vPvB | Very Persistent and very Bioaccumulative
WEL | Workplace exposure limit

Key literature references and sources for data

List of relevant phrases (code and full text as stated in chapter 2 and 3)

<table>
<thead>
<tr>
<th>Code</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>H315</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
</tbody>
</table>
Disclaimer
This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.