Safety Data Sheet

according to Regulation (EC) No. 1907/2006

5-min.-epoxy, resin (155.XXXX)

Print date: 30.08.2011  Product code: 155.XXXX  Page 1 of 8

1. Identification of the substance/mixture and of the company/undertaking

Identification of the substance or mixture
5-min.-epoxy, resin (155.XXXX)

Use of the substance/mixture
epoxy resin systems

Company/undertaking identification

Company name: Suter Kunststoffe AG
Composite Technology
Street: Aefligenstrasse 3
Place: CH-3312 Fraubrunnen
Post-office box: 
Telephone: +41-31 763 60 60  Telefax: +41-31 763 60 61
E-mail: info@swiss-composite.ch
Website: www.swiss-composite.ch
Responsible Department: Management
Emergency telephone: poison information centre 145

2. Hazards identification

Classification

Indications of danger: Irritant, Dangerous for the environment
R-phrases:
Irritating to eyes.
Irritating to skin.
May cause sensitization by skin contact.
Toxic to aquatic organisms.
May cause long-term adverse effects in the aquatic environment.

GHS: Hazard categories:
Skin corrosion/irritation: Skin Irrit. 2
Serious eye damage/eye irritation: Eye Irrit. 2
Respiratory/skin sensitization: Skin Sens. 1
Hazardous to the aquatic environment: Aquatic Chronic 2

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

Explication of special hazards for human health and environment
The residual content of epichlorohydrin complies with the APME recommendations for modified epoxy resins. < 5ppm (0,0005%).

3. Composition/information on ingredients

Chemical characterization ( Mixture )
Modifiziertes Epoxidharz
5-min.-epoxy, resin (155104-X, 155105-X)

Hazardous components

<table>
<thead>
<tr>
<th>EC No.</th>
<th>CAS No.</th>
<th>Chemical name</th>
<th>GHS classification</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>500-033-5</td>
<td>25068-38-6</td>
<td>epoxy resin (number average molecular weight &lt;= 700), reaction product: bisphenol-A-(epichlorhydrin)</td>
<td>Xi, N R36/38-43-51-53 Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H319 H317 H411</td>
<td>&gt; 50%</td>
</tr>
<tr>
<td>500-006-8</td>
<td>9003-36-5</td>
<td>epoxy resin (number average molecular weight &lt;= 700), reaction product: bisphenol-F-(epichlorhydrin)</td>
<td>Xi, N R36/38-43-51-53 Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H319 H317 H411</td>
<td>25-50%</td>
</tr>
</tbody>
</table>

Full text of R- and H-phrases: see section 16.

4. First aid measures

**General information**
Change contaminated clothing.

**After inhalation**
Following inhalation: Move victim to fresh air. Consult physician. If victim is at risk of losing consciousness, position and transport on their side.

**After contact with skin**
After contact with skin, wash immediately with soap and plenty of water. If skin becomes irritated, seek medical treatment.

**After contact with eyes**
After contact with eye rinse immediately with lot of water at least 5 minutes with open eyelid. Subsequently consult an ophthalmologist.

**After ingestion**
Rinse mouth immediately and drink large quantities of water. Consult physician.

5. Fire-fighting measures

**Suitable extinguishing media**
Carbon dioxide (CO2).
Extinguishing powder.
Water fog.

**Extinguishing media which must not be used for safety reasons**
High power water jet.

**Special exposure hazards arising from substance or mixture itself, combustion products, resulting gases**
In case of fire may form: Carbon monoxide. Under certain conditions traces of toxic substances cannot be ruled out, e.g.: Chlorhydric gas (HCl).

**Special protective equipment for fire-fighters**
Wear a protective full body suit. Wear breathing apparatus with own air supply.

**Additional information**
Contaminated fire-fighting water must be collected separately. Contaminated fire-fighting water must not get into the sewerage network. Fire residue and contaminated firefighting water must be disposed of in accordance with government regulations.
6. Accidental release measures

**Personal precautions**
Wear personal protection equipment. Keep unprotected persons at a safe distance.

**Environmental precautions**
Do not empty into drains or the aquatic environment. Do not allow to enter the soil or subsoil.

**Methods for cleaning up/taking up**
Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Dispose of contaminated material as § 13 waste.

7. Handling and storage

**Handling**

**Advice on safe handling**
Provide for sufficient ventilation and punctiform suction at critical points.

**Advice on protection against fire and explosion**
No special measures are necessary.

**Storage**

**Requirements for storage rooms and vessels**
Employ reliable measures to prevent the product from entering the soil.

**Further information on storage conditions**
Keep in well sealed receptacles at a cool, dry location.

Storage class (D): 10

8. Exposure controls/personal protection

**Exposure limit values**

**Exposure controls**

**Protective and hygiene measures**
Take off immediately all contaminated clothing Avoid contact with skin and eyes. Wash hands before breaks and after work.

**Respiratory protection**
Not necessary when the room is well ventilated.

**Hand protection**
Wear protective gloves. (EN 374)
Material: NBR (Nitrile rubber), Butyl rubber.
Breakthrough time: See information supplied by the manufacturer.

**Eye protection**
Tightly sealed safety glasses. (EN 166)

**Skin protection**
Wear protective clothing. (EN 340)

9. Physical and chemical properties

**General information**
Physical state: viscous, liquid
Colour: light yellow
Odour: weak, characteristic
Important health, safety and environmental information

Changes in the physical state
Boiling point: > 200 °C DIN 53171
Flash point: > 150 °C ISO 2719
Vapour pressure: < 0,1 hPa
(at 20 °C)
Density (at 20 °C): 1,16-1,18 g/cm³ DIN 53217
Water solubility: not miscible / slightly soluble
Viscosity / dynamic: 6.800 - 8.800 mPa·s ISO 9371
(at 25 °C)

Other information
Ignition temperature: 460 °C DIN 51794

10. Stability and reactivity

Conditions to avoid
no decomposition when stored and handled properly

Hazardous decomposition products
Violent reaction with: alkalis and numerous organic substance categories like alcohols and amines polymerisation under the action of heat Thermal decomposition can lead to the escape of irritating gases and vapors.

11. Toxicological information

Specific effects in experiment on an animal
LD/LC50: 25068-38-6 Bisphenol A-epichlorohydrin resin mw<= 700
oral: 11.400 mg/kg (rat) LD50
dermal: >2.000 mg/kg (rabbit) LD50
LD/LC50: 9003-36-5 Bisphenol F-epichlorohydrin resin mw<= 700
oral: 23.800 mg/kg (rat) LD50
dermal: >2.000 mg/kg (rabbit) LD50

Irritation and corrosivity
Irritation to skin, eyes, and mucous membranes.

Sensitizing effects
Contact may cause skin sensitisation.

12. Ecological information

Ecotoxicity
Bisphenol A-epichlorohydrin resin mw<= 700
Oncorhynchus mykiss: LC50 (96h) 1,5-7,7 mg/l
Daphnia magna: EC50 (24h) 1,1-3,6 mg/l
Green algae: EC50 (96h) 220 mg/l

Persistence and degradability
Product is biodegradable with difficulty.

Further information
Do not let the product enter the groundwater, open water, or the sewerage system.

13. Disposal considerations
Advice on disposal
Dispose of waste according to applicable local, state, and federal regulations. e.g. transfer to a suitable incineration plant. Waste key numbers are assigned according to the European Waste Catalogue (EWC) depending on the sector and process type.

Contaminated packaging
Dispose of waste according to applicable local, state, and federal regulations.

14. Transport information

Land transport (ADR/RID)
- UN number: 3082
- ADR/RID class: 9
- Classification code: M6
- Warning plate
  - Hazard-no.: 90
  - Hazard label: 9

ADR/RID packing group: III
Limited quantity: LQ7
Tunnel restriction code: E

Description of the goods
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxidharz MG < 700)

Other applicable information (land transport)
Special provisions: 274 335 601
E1 : 3

Marine transport
- UN number: 3082
- IMDG code: 9
- Marine pollutant: •
- Hazard label: 9

IMDG packing group: III
EmS: F-A, S-F
Limited quantity: 5 L

Description of the goods
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin)

Other applicable information (marine transport)
Special provisions: 274, 909, 944
E1

Air transport
- UN/ID number: 3082
5-min.-epoxy, resin (155104-X, 155105-X)

according to Regulation (EC) No. 1907/2006

| ICAO/IATA-DGR: | 9 |
| Hazard label: | 9 |

ICAO packing group: III
Limited quantity Passenger: 30 kg G

IATA-packing instructions - Passenger: 914
IATA-max. quantity - Passenger: 450 L
IATA-packing instructions - Cargo: 914
IATA-max. quantity - Cargo: 450 L

**Description of the goods**
ENVIROMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin)

**Other applicable information (air transport)**

- E1
- : Y914
- Special provisions: A97 A158

### 15. Regulatory information

#### Labelling

Danger symbols:

- Xi - Irritant; N - Dangerous for the environment

**Hazardous components which must be listed on the label**

- Bisphenol A-epichlorohydrin resin mw<= 700
- Bisphenol F-epichlorohydrin resin mw<= 700

**R phrases**

- 36 Irritating to eyes.
- 38 Irritating to skin.
- 43 May cause sensitization by skin contact.
- 51 Toxic to aquatic organisms.
- 53 May cause long-term adverse effects in the aquatic environment.

**S phrases**

- 24 Avoid contact with skin.
- 28 After contact with skin, wash immediately with plenty of Wasser und Seife.
- 37 Wear suitable gloves.
- 39 Wear eye/face protection.
- 61 Avoid release to the environment. Refer to special instructions / Safety data sheets.

**Special labelling of certain mixtures**

Contains epoxy constituents. See information supplied by the manufacturer.

**Additional advice on labelling**

The product is classified and labelled under the EC Directives/hazardous substances laws (GefStoffV).
Signal word: Warning
Pictograms: exclamation mark; environment

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

Precautionary statements
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash ... thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P321 Specific treatment (see ... on this label).
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P362 Take off contaminated clothing and wash before reuse.
P363 Wash contaminated clothing before reuse.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.
P391 Collect spillage.
P501 Dispose of contents/container to ....

National regulatory information
Water contaminating class (D): 2 - water contaminating

Additional information
APME document: "Epoxidharze und Härter (Toxikologie, Arbeitssicherheit, Umwelt)" ("Epoxy resins and hardeners (toxicology, work safety, environment)"")
BG code of practice: M023 ("Polyester and epoxy resins") (ZH 1/301)

16. Other information

Full text of R-phrases referred to under sections 2 and 3
36 Irritating to eyes.
36/38 Irritating to eyes and skin.
38 Irritating to skin.
43 May cause sensitization by skin contact.
51 Toxic to aquatic organisms.
53 May cause long-term adverse effects in the aquatic environment.

Full text of H-Statements referred to under sections 2 and 3
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.
Further Information

All information, recommendations, and advice on the part of R&G Faserverbundwerkstoffe GmbH are published to the best of our knowledge and belief. They are noncommittal and contain neither explicit nor tacit assurance or warranty of particular properties. The values specified for properties are typical figures. Recommendations or advice serve to describe our products and possible applications in a general or exemplary, but not specifically individual manner. In the course of the constant technical advancement and improvement of our products there may be changes to the characteristic values, copy, and diagrams; no specific reference is made to any such change. Owing to our products’ wide and highly diverse range of potential applications far beyond any of our attempts to analyse, the customer alone is responsible for examining our products’ suitability for the respective processes and purposes and their respective processibility. All and any protective rights and the applicable laws, terms, and conditions must be observed by the buyer or user of our products at their own responsibility. Publication is not a licence and does not intend the violation of any patents.

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