

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

Active diluent EPD-BD (130135-X)

Print date : 15.05.2009

Product code : 130135-X

Page 1 of 6

1. Identification of the substance/preparation and of the company/undertaking**Identification of the substance or preparation**

Active diluent EPD-BD (130135-X)

Use of the substance/preparation

epoxy resin systems, reactive diluent

Company/undertaking identification

Company name : R&G Faserverbundwerkstoffe GmbH
 Composite Technology
 Street : Im Meißel 7 - 13
 Place : D-71111 Waldenbuch
 Post-office box : 1145
 D-71107 Waldenbuch
 Telephone : +49-7157-530460
 Telefax : +49-7157-530470
 e-mail : info@r-g.de
 Internet : www.r-g.de
 Inquiry office : Management
 Emergency telephone : poison information centre

2. Hazards identification**Classification**

Indications of danger : Harmful, Irritant
 R-phrases :
 Harmful by inhalation and in contact with skin.
 Irritating to eyes and skin.
 May cause sensitization by skin contact.

Explication of special hazards for human health and environment

Constituents contain epoxy. Observe the manufacturer's instructions.
 The residual content of epichlorohydrin complies with the APME recommendations for modified epoxy resins. < 20 ppm (0,002%)

3. Composition/information on ingredients**Chemical characterization (substance)****Hazardous components**

EC-No.	CAS-No.	Chemical name GHS classification	Quantity	Classification
219-371-7	2425-79-8	1,4-bis(2,3 epoxypropoxy)butane, butanedioldiglycidyl ether Acute Tox. 4 *, Acute Tox. 4 *, Eye Irrit. 2, Skin Irrit. 2, Skin Sens. 1; H332 H312 H319 H315 H317	100 %	Xn, Xi R20/21-36/38-43

Full text of each relevant R phrase can be found in heading 16.

Index No. : 603-072-00-7

4. First aid measures**General information**

Take the injured person out of the danger area and lay him/her down. Take off immediately all contaminated clothing Symptoms of poisoning may develop several hours following exposure. Victim should be under medical observation for at least 48 hours after exposure.

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

Active diluent EPD-BD (130135-X)

Print date : 15.05.2009

Product code : 130135-X

Page 2 of 6

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

If the product comes into contact with the eyes, immediately rinse the open eyes with copious amounts of water for at least ten minutes. Afterwards consult an eye specialist.

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.
Fight major fires with a water spray jet or alcohol-resistant foam.

Extinguishing media which must not be used for safety reasons

High power water jet.

Special exposure hazards arising from substance or preparation 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 groundwater. 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 adequate ventilation/vapour extraction at the workplace.

Storage**Requirements for storage rooms and vessels**

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

Active diluent EPD-BD (130135-X)

Print date : 15.05.2009

Product code : 130135-X

Page 3 of 6

Employ reliable measures to prevent the product from entering the soil. Ventilate adequately storage and work rooms.

Further information on storage conditions

Keep in well sealed receptacles at a cool, dry location.

Storage temperature: > 5°C, < 35°C

Storageclass (VCI) : 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. Do not breathe in gases/vapours/aerosols.

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 : liquid
 Colour : weak
 Odour : characteristic weak

Important health, safety and environmental information

	Test method
pH-Value :	6-8
Changes in the physical state	
Boiling point :	266 °C
limit temperature :	110 °C TRAS 410, DSC
Flash point :	112 °C DIN 51758
Vapour pressure : (at 50 °C)	< 5 hPa
Density (at 20 °C) :	1,11 g/cm ³ DIN 53217
Water solubility :	not miscible / slightly soluble
Viscosity / dynamic : (at 20 °C)	15 mPa·s ISO 9371

10. Stability and reactivity**Conditions to avoid**

no decomposition when stored and handled properly polymerisation under the action of heat

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

Active diluent EPD-BD (130135-X)

Print date : 15.05.2009

Product code : 130135-X

Page 4 of 6

Materials to avoid

amines.
Oxidizing agents.
strong alkalis and acid

Hazardous decomposition products

hydrocarbons. formation of potentially explosive gases/vapours

11. Toxicological information**Acute toxicity**

2425-79-8 1,4-bis(2,3 epoxypropoxy)butane, butanedioldiglycidyl ether
oral: 1.410 - 3.000 mg/kg (rat) LD50
dermal: 1.500 mg/kg (rabbit) LD50

Specific effects in experiment on an animal

Irritant effect on the eye, mild irritation to the skin (rabbit).

Sensitising effects

Contact may cause skin sensitisation.

12. Ecological information**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.

Waste disposal number of waste from residues/unused products

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other dangerous substances
Classified as hazardous waste.

Waste disposal number of used product

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other dangerous substances
Classified as hazardous waste.

Waste disposal number of contaminated packaging

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other dangerous substances
Classified as hazardous waste.

Contaminated packaging

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

14. Transport information**Land transport (ADR/RID)**

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

Active diluent EPD-BD (130135-X)

Print date : 15.05.2009

Product code : 130135-X

Page 5 of 6

Description of the goods

National und International: Not a hazardous material with respect to transportation regulations.

Marine transport

UN number : 9999
Marine pollutant : no

15. Regulatory information**Labelling**

Danger symbols : Xn - Harmful

Hazardous component(s) to be indicated on label

1,4-bis(2,3 epoxypropoxy)butane, butanedioldiglycidyl ether

R phrases

- 20 Harmful by inhalation.
21 Harmful in contact with skin.
36 Irritating to eyes.
38 Irritating to skin.
43 May cause sensitization by skin contact.
52 Harmful to aquatic organisms.
53 May cause long-term adverse effects in the aquatic environment.

S phrases

- 25 Avoid contact with eyes.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
35 This material and its container must be disposed of in a safe way.
51 Use only in well-ventilated areas.
61 Avoid release to the environment. Refer to special instructions / Safety data sheets.
36/37 Wear suitable protective clothing and gloves.

Additional advice on labelling

The product is classified and labelled under the EC Directives/hazardous substances laws (GefStoffV).

EU regulatory information**Additional information**

Contains epoxy constituents. See information supplied by the manufacturer.

National regulatory information

Water contaminating class (D) : 1 - slightly water contaminating

16. Other information**Full text of R-phrases referred to under sections 2 and 3**

- 20 Harmful by inhalation.
20/21 Harmful by inhalation and in contact with skin.
21 Harmful in contact with skin.
36 Irritating to eyes.
36/38 Irritating to eyes and skin.
38 Irritating to skin.
43 May cause sensitization by skin contact.
52 Harmful to aquatic organisms.
53 May cause long-term adverse effects in the aquatic environment.

Further Information

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

Active diluent EPD-BD (130135-X)

Print date : 15.05.2009

Product code : 130135-X

Page 6 of 6

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.