

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

Epoxy Resin (water-clear)

Print date: 10.08.2010

Product code: 107106-2010

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

Identification of the substance or preparation

Epoxy Resin (water-clear)

Use of the substance/preparation

epoxy resin systems

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
 Responsible Department: Management
 Emergency telephone: poison information centre

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.

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. < 10 ppm (0,001%).

3. Composition/information on ingredients

Chemical characterization (Mixture)

Epoxy resin formulation based on bisphenol-A liquid resin

Hazardous components

EC-No.	CAS-No.	Chemical name	Quantity	Classification
500-033-5	25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)	50 - 100 %	Xi, N R36/38-43-51-53
	16096-31-4	Hexandioldiglycidylether	10 - 25 %	Xi R36/38-43-52-53
	28064-14-4	Reaction product: bisphenol F-epichlorohydrin resins	10 - 25 %	Xi, N R36/38-43-51-53

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

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Further Information

The wording for the listed danger notices can be taken from 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.
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 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.

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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.

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.

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: light yellow
 Odour: weak, characteristic

Important health, safety and environmental information

	Test method
pH-Value (at 20 °C):	6-8
Changes in the physical state	
Boiling point:	> 200 °C DIN 53171
Flash point:	ca. 252 °C ISO 2719
Vapour pressure: (at 20 °C)	5 hPa
Density (at 20 °C):	1,16 g/cm ³ DIN 53217
Water solubility:	not miscible / slightly soluble
Viscosity / dynamic: (at 25 °C)	2.300 mPa·s ISO 9371

10. Stability and reactivity

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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

25068-38-6 Bisphenol A-epichlorohydrin resin mw<= 700

oral: 11.400 mg/kg (rat) LD50

dermal: >2.000 mg/kg (rabbit) LD50

Corrosive and irritant effects

Irritation to skin, eyes, and mucous membranes.

Sensitising 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.

Waste disposal number of waste from residues/unused products

080299 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of other coatings (including ceramic materials); wastes not otherwise specified

Waste disposal number of used product

080299 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of other coatings (including ceramic materials); wastes not otherwise specified

Contaminated packaging

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

14. Transport information

Land transport (ADR/RID)

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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. (Epoxy resin MG<700)

Other applicable information (land transport)

: 274 - 601
 : 3
 : E
 Special provisions: 274 335 601
 E1

Marine transport

UN number: 3082
 IMDG code: 9
 Marine pollutant: no
 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)

: 274, 909, 944
 Special provisions: 179, 274, 335, 909
 E1

Air transport

UN/ID number: 3082
 ICAO/IATA-DGR: 9
 Hazard label: 9



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

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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

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Other applicable information (air transport)

: Y914
: A97
E1
: Y914
Special provisions: A97 A158

15. Regulatory information

Labelling

Danger symbols: Xi - Irritant; N - Dangerous for the environment



Xi - Irritant



N - Dangerous for the environment

Hazardous components which must be listed on the label

Bisphenol A-epichlorohydrin resin mw <= 700
Epoxide derivatives 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 water and soap. .
57 Use appropriate containment to avoid environmental contamination.
37/39 Wear suitable gloves and eye/face protection.

Special labelling for certain preparations

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).

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

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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.
- 52 Harmful to aquatic organisms.
- 53 May cause long-term adverse effects in the aquatic environment.

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.)