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

Identification of the substance or preparation

Epoxy resin C

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.

3. Composition/information on ingredients

Chemical characterization (Mixture)

Modifiziertes Epoxidharz

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)	0 - 100%	Xi, N R36/38-43-51-53

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

4. First aid measures

General information

Change contaminated clothing.

After inhalation

Bring the patient out into the fresh air. Consult a doctor when complaints persist.

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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

Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. In case of durable symptoms, consult an opthalmologist.

After ingestion

Have victim drink large quantities of water, with active charcoal if possible. Move a vomiting patient lying on his back into a stable position on his side. In case of difficulties of breathing administer oxygen. Artificial respiration on respiratory arrest. Do not induce vomiting.

5. Fire-fighting measures

Suitable extinguishing media

Atomized water. Carbon dioxide (CO2). Foam. Dry extinguishing powder.

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 toxic gases Carbon dioxide. Carbon monoxide.

Special protective equipment for fire-fighters

Wear a protective full body suit. Wear breathing apparatus with own air supply.

6. Accidental release measures

Personal precautions

Remove from all sources of ignition. Do not breathe in vapours. Do not breathe dust. Avoid contact with skin, eyes, and clothing.

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

Soak up inert absorbent and dispose as waste requiring special observation.

7. Handling and storage

Handling

Advice on safe handling

Provide for sufficient ventilation and punctiform suction at critical points. Handle open container with care.

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.

Advice on storage compatibility

Keep away from food, drink and animal feeding stuffs.

Further information on storage conditions

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

Storageclass (VCI):

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8. Exposure controls/personal protection

Exposure limit values

Exposure controls

Protective and hygiene measures

Keep away from sources of ignition. No smoking. Avoid contact with skin, eyes, and clothing.

Hand protection

Wear protective gloves.

Eye protection

Tightly sealed safety glasses. Eye-shade.

Skin protection

Wear protective clothing. Chemical resistant safety shoes.

9. Physical and chemical properties

General information

Physical state: liquid Colour: light yellow

Important health, safety and environmental information

		Test method
pH-Value (at 20 °C):	7	
Changes in the physical state		
Boiling point:	> 200 °C	
Flash point:	> 200 °C	
Vapour pressure: (at 20 °C)	< 0,01 hPa	
Density (at 25 °C):	1,15 - 1,2 g/cm³	
Water solubility: (at 20 °C)	insoluble	
Viscosity / dynamic: (at 25 °C)	7.000 - 9.000 mPa⋅s	

10. Stability and reactivity

Conditions to avoid

Take precautionary measures against static discharges.

Materials to avoid

strong acid and alikalis Oxidizing agents.

Hazardous decomposition products

Carbon dioxide. Carbon monoxide. Gas / vapours, harmful.

11. Toxicological information

Specific effects in experiment on an animal

LD/LC50: 25068-38-6 Bisphenol A-epichlorohydrin resin mw<= 700

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rat: oral LD50: 5.000 mg/kg rabbit: Irritation to skin, eyes, and mucous membranes. Guinea-pig.: Contact may cause skin sensitisation.

12. Ecological information

Ecotoxicity

Bisphenol A-epichlorohydrin resin mw<= 700 Oncorhynchus mykiss: LC50 (96h) 1,5 mg/l Daphnia magna: EC50 (96h) 3,6 mg/l Bacterial toxicity: IC50 (3h) > 100 mg/l

Persistence and degradability

not easily bio-degradable (according to OECD-criteria).

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

070208 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of plastics, synthetic rubber and man-made fibres; other still bottoms and reaction residues Classified as hazardous waste.

Waste disposal number of used product

070208 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of plastics, synthetic rubber and man-made fibres; other still bottoms and reaction residues Classified as hazardous waste.

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
Â,	
9	
ADR/RID packing group:	III
Limited quantity:	LQ7
Tunnel restriction code:	Е

Description of the goods

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol A Epoxy Resin)

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according to Regulation (EU) No. 1907/2006			
Epoxy resin C			
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Other applicable information (land tra : 274 - 601	ansport)		
: 3			
: E			
Special provisions: 274 33	35 601		
E1			
Marine transport			
UN number:	3082		
IMDG code:	9		
Marine pollutant:	•		
Hazard label:	9		
, MD,			
9			
IMDG packing group:	111		
EmS:	F-A, S-F		
Limited quantity:	5 L		
Description of the goods	ZARDOUS SUBSTA	NCE, LIQUID, N.O.S. (Bisphenol A Epoxy R	esin)
Other applicable information (marine			
: 274, 909, 944 E1			
Air transport			
UN/ID number:	3082		
ICAO/IATA-DGR:	9		
Hazard label:	9		
, Mh,			
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		NCE, LIQUID, N.O.S. (Bisphenol A Epoxy R	esin)
Other applicable information (air trans : Y914	sport)		
: A97			
E1			
Special provisions: A97 A	158		
15. Regulatory information			
l abelling			

Labelling

Danger symbols:

Xi - Irritant; N - Dangerous for the environment

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×	N N N N N N N N N N N N N N N N N N N		
Xi - Irritant	N - Dangerous for the environment		
Hazardous com	ponents which must be listed on the label		
	phenol A-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			
. 28	After contact with skin, wash immediately with plenty of (to be specified by the manufacturer)		
37	Wear suitable gloves.		
39	Wear eye/face protection.		
61	Avoid release to the environment. Refer to special instructions / Safety data sheets.		
	g for certain preparations ntains epoxy constituents. See information supplied by the manufacturer.		
Additional advid	ce on labelling		
	e product is classified and labelled under the EC Directives/hazardous substances laws (GefStoffV).		
National regulatory	v information		
Water contamina	ating class (D): 2 - water contaminating		
Additional infor	mation		
API	ME 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 informa	ition		
Full toyt of D at	verses referred to under sections 2 and 2		
36	Irritating to eyes.		
36/38	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.

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.

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