

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006

## 5-min.-epoxy, resin (155104-X, 155105-X)

Print date: 30.08.2011

Product code: 155104-2010

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

#### Identification of the substance or mixture

5-min.-epoxy, resin (155104-X, 155105-X)

#### Use of the substance/mixture

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.

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

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### Hazardous components

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

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 (CO<sub>2</sub>).  
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 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.

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### 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.

Storageclass (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

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### Important health, safety and environmental information

Test method

#### Changes in the physical state

Boiling point:	> 200 °C	DIN 53171
Flash point:	> 150 °C	ISO 2719
Vapour pressure: (at 20 °C)	< 0,1 hPa	
Density (at 20 °C):	1,16-1,18 g/cm <sup>3</sup>	DIN 53217
Water solubility:	not miscible / slightly soluble	
Viscosity / dynamic: (at 25 °C)	6.800 - 8.800 mPa·s	ISO 9371

#### Other information

Ignition temperature:	460 °C	DIN 51794
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### 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

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### 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

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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

ENVIRONMENTALLY 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



Xi - Irritant



N - Dangerous for the environment

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

Bisphenol A-epichlorohydrin resin  $mw \leq 700$   
Bisphenol F-epichlorohydrin resin  $mw \leq 700$

### 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).

### GHS labelling

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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.

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### 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.

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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.)*