

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Hardener GL 2

Print date: 09.05.2012

Product code: 104100-2012-GHS

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

Identification of the substance or mixture

Hardener GL 2

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 : Corrosive
R-phrases:
Harmful in contact with skin and if swallowed.
Causes burns.
May cause sensitization by skin contact.
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Harmful: may cause lung damage if swallowed.

3. Composition/information on ingredients

Chemical characterization (Mixture)

Epoxidharzhärter, Formulierung auf Basis aliphatischer Polyamine

Hazardous components

EC No	CAS No	Chemical name	Quantity	Classification
	9046-10-0	Polyoxyalkylenediamine	50 - 100 %	C R34
220-666-8	2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine	25 - 50 %	Xn, C R21/22-34-43-52-53

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

4. First aid measures

General information

Immediately take off soiled, impregnated clothing.

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. Call a doctor, giving the substance's exact name.

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Advice to doctor

Provide symptomatic treatment.

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.

Additional information

Fire residue and contaminated firefighting water must be disposed of in accordance with government regulations.

6. Accidental release measures

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. Provide adequate ventilation.

7. Handling and storage

Handling

Advice on safe handling

Provide adequate room ventilation, if necessary with vapour extraction at the workplace.

Storage

Requirements for storage rooms and vessels

Keep only in the original container. Provide for retaining containers, eg. floor pan without outflow.

Advice on storage compatibility

Store separately from foodstuffs.

Further information on storage conditions

Provide for retaining containers, eg. floor pan without outflow.

8. Exposure controls/personal protection

Exposure limit values

Exposure controls

Protective and hygiene measures

Von Nahrungsmitteln, Getränken und Futtermitteln fernhalten.
Beschmutzte, getränkte Kleidung sofort ausziehen.
Vor den Pausen und bei Arbeitsende Hände waschen.
Berührung mit den Augen und der Haut vermeiden.

Respiratory protection

Bei unzureichender Belüftung Atemschutz. Empfohlenes Filtergerät für kurzzeitigen Einsatz:
Kombinationsfilter A-P2

Hand protection

Nur Chemikalien-Schutzhandschuhe mit einer CE-Kennzeichnung der Kategorie III verwenden. Zur Minimierung der Nässe im Handschuh durch Schweißbildung ist ein Wechsellernen der Handschuhe

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während einer Schicht erforderlich. Vor jeder erneuten Verwendung des Handschuhs ist die Dichtheit zu prüfen. Vorbeugender Hautschutz durch Verwendung von Hautschutzmitteln wird empfohlen.

Handschuhmaterial: Nitrilkautschuk, Fluorkautschuk (Viton)

Empfohlene Materialstärke: $\geq 0,5\text{mm}$

Eye protection

Dichtschliessende Schutzbrille

Skin protection

Arbeitsschutzkleidung

9. Physical and chemical properties

General information

Physical state: liquid
Colour:
Odour: amine-like

Important health, safety and environmental information

Test method

Changes in the physical state

Boiling point:	> 247 °C
Flash point:	> 100 °C
Lower explosion limits:	0,7 vol. %
Upper explosion limits:	5 vol. %
Vapour pressure: (at 20 °C)	0 hPa
Density (at 23 °C):	0,94 g/cm ³
Water solubility:	slightly soluble
Viscosity / dynamic: (at 25 °C)	16 mPa·s

Other information

Ignition temperature: 240 °C

10. Stability and reactivity

Hazardous decomposition products

Fire and decomposition may release irritant, caustic, ignitable, unhealthy, toxic gases and vapours.

11. Toxicological information

Irritation and corrosivity

Strong caustic effects on eyes, skin, and mucous membranes.

Sensitising effects

May cause sensitization by skin contact.

12. Ecological information

Ecotoxicity

not determined

Further information

Undiluted or nonneutralised product may not enter waste water channel or main outfall.

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13. Disposal considerations

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)

UN number: UN2735
ADR/RID class: 8
Classification code: C7
Warning plate
Hazard No: 80
Hazard label: 8



ADR/RID packing group: II
Limited quantity: 1 L
Tunnel restriction code: E

Description of the goods

POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Polyoxypropylendiamin)

Other applicable information (land transport)

Special provisions: 274
E2
: 2

Marine transport

UN number: UN2735
IMDG code: 8
Hazard label: 8



IMDG packing group: II
EmS: F-A, S-B
Limited quantity: 1 L

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Description of the goods

POLYAMINES, LIQUID, CORROSIVE, N.O.S.(Polyoxypropylendiamin)

Other applicable information (marine transport)

Special provisions: 274, 944
E2

Air transport

UN/ID number: UN2735
ICAO/IATA-DGR: 8
Hazard label: 8



ICAO packing group: II
Limited quantity Passenger: 0.5 L
IATA-packing instructions - Passenger: 851
IATA-max. quantity - Passenger: 1 L
IATA-packing instructions - Cargo: 855
IATA-max. quantity - Cargo: 30 L

Description of the goods

POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Polyoxypropylendiamin)

Other applicable information (air transport)

E2
: Y808
Special provisions: A3
: Y840

15. Regulatory information

Labelling

Danger symbols: C - Corrosive



C - Corrosive

R phrases

21/22 Harmful in contact with skin and if swallowed.
34 Causes burns.
43 May cause sensitization by skin contact.
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
65 Harmful: may cause lung damage if swallowed.

S phrases

20 When using do not eat or drink.
23 Do not breathe Do not breath vapour. .
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
60 This material and its container must be disposed of as hazardous waste.

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- 61 Avoid release to the environment. Refer to special instructions / Safety data sheets.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

National regulatory information

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

Additional information

BG Merkblatt:
Praxisleitfaden für den Umgang mit Epoxidharzen
(herausgegeben von der Berufsgenossenschaft der Bauwirtschaft)
www.bgbau.de oder www.gisbau.de

Epoxidharz-Systeme sicher handhaben
(herausgegeben von PlasticsEurope)
www.plasticseurope.org

BGR 227 "Tätigkeiten mit Epoxidharzen"
(herausgegeben vom Hauptverband der gewerblichen Berufsgenossenschaften)
www.dguv.de
BGR 190 - Regel für den Einsatz von Atemschutzgeräten
BGR 192 - Regeln für den Einsatz von Augen- und Gesichtsschutz

16. Other information

Full text of R-phrases referred to under sections 2 and 3

- 21/22 Harmful in contact with skin and if swallowed.
34 Causes burns.
43 May cause sensitization by skin contact.
52 Harmful to aquatic organisms.
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
53 May cause long-term adverse effects in the aquatic environment.
65 Harmful: may cause lung damage if swallowed.

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