

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Hardener GL 1

Print date: 22.04.2013

Product code: 104095-GHS-2013

Page 1 of 7

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

Identification of the substance or mixture

Hardener GL 1

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	
1.4. Emergency telephone number:	poison information centre	

2. Hazards identification

Classification

Indications of danger: C - Corrosive, Xn - Harmful

R phrases:

Harmful in contact with skin and if swallowed.

Causes burns.

May cause sensitisation by skin contact.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

GHS: Hazard categories:

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Corr. 1B

Serious eye damage/eye irritation: Eye Dam. 1

Respiratory/skin sensitization: Skin Sens. 1

Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:

Harmful if swallowed.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

Harmful to aquatic life with long lasting effects.

3. Composition/information on ingredients

Chemical characterization (Mixture)

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Hardener GL 1

Print date: 22.04.2013

Product code: 104095-GHS-2013

Page 2 of 7

Hazardous components

EC No	CAS No	Chemical name	Quantity
		Classification GHS classification	
220-666-8	2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine	25-50%
		C - Corrosive, Xn - Harmful R21/22-34-43-52-53	
		Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, Skin Sens. 1, Aquatic Chronic 3; H312 H302 H314 H317 H412	
216-032-5	1477-55-0	Alpha, Alpha-diamino-M-Xylene	10-25%
		C - Corrosive, Xn - Harmful R20-22-35-43-52-53	
262-975-0	61788-44-1	pehnl.styrolized	10-25%
		Xi - Irritant, N - Dangerous for the environment R38-43-51-53	
		Skin Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H317 H411	
247-134-8	25620-58-0	Trimethylhexamethylen Diamine	2,5-10%
		C - Corrosive, Xn - Harmful R22-34-52-53	
	69-72-7	Salicylsäure	2,5-10%
		Xn - Harmful, Xi - Irritant R22-37/38-41	
	9046-10-0	Polyoxyalkylenediamine	2,5-10%
		C - Corrosive R34	

Full text of R and H phrases: see Section 16.

4. First aid measures

General information

Take off immediately all contaminated clothing

After inhalation

Move victim to fresh air. Instruct person to keep calm and warm. consult a doctor.

After contact with skin

Washing places concerned with a lot of water and soap. If the symptom doesn't stop, consult doctor.

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

Drink plenty of water and fresh air. Call a doctor immediately

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 mixture itself, combustion products, resulting gases

When heating up or in the fire case formation of poisonous gasses possible.

Special protective equipment for fire-fighters

Use appropriate respiratory protection.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Hardener GL 1

Print date: 22.04.2013

Product code: 104095-GHS-2013

Page 3 of 7

6. Accidental release measures

Personal precautions

Wearing a personal protective clothing.

6.2. Environmental precautions

Do not allow to enter the sewerage system.

Do not allow to enter the soil or subsoil.

Methods for cleaning up/taking up

Take up with absorbent material (e.g. sand, kieselguhr, universal binder). Send in suitable containers for recovery or disposal.

Additional information

Carefully cleaning scene of an accident.

7. Handling and storage

Handling

Advice on safe handling

If suction of the immediate vicinity is impossible or insufficient, adequate airing of the working place must be ensured.

Advice on protection against fire and explosion

No special measures necessary

Storage

Requirements for storage rooms and vessels

Always keep in containers of same material as the original. Instructions on the label. Protect from heat and direct sunlight. Provide for retaining containers, eg. floor pan without outflow.

Advice on storage compatibility

Store separately from foodstuffs.

Further information on storage conditions

Keep receptacles tightly sealed.

Storageclass (D):

8 A

8. Exposure controls/personal protection

Exposure limit values

8.2. Exposure controls

Protective and hygiene measures

Keep away from food, drink and animal feeding stuffs. Wash hands before breaks and after work.

Respiratory protection

In case of insufficient ventilation wear suitable respiratory equipment. Filter type AX-P2 (organic vapors, particles)

Hand protection

Only chemicals - protective gloves with CE-labeling of category 3 use. Not suitable are gloves made ?? of: Strong gloves. Gloves made of leather.

Eye protection

Protective goggles (EN 166)

Skin protection

Protective work clothing (EN 340)

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Hardener GL 1

Print date: 22.04.2013

Product code: 104095-GHS-2013

Page 4 of 7

9. Physical and chemical properties

General information

Physical state: liquid
Colour: yellowish
Odour: amine-like

Important health, safety and environmental information

Test method

Changes in the physical state

Melting point: not determined
Boiling point: >200 °C
Flash point: >100 °C
Lower explosion limits: 1,2 vol. %
Upper explosion limits:
Density (at 23 °C): 1 g/cm³ ISO 2811
Viscosity / dynamic:
(at 25 °C) 100 mPa·s

9.2. Other information

Auto-ignition temperature: Not self-igniting
Solid:
Gas:
Ignition temperature: 365 °C

10. Stability and reactivity

10.4. Conditions to avoid

No further relevant information

Materials to avoid

Oxidizing agents, strong.

10.6. Hazardous decomposition products

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

11. Toxicological information

Irritation and corrosivity

Irritation to skin, eyes, and mucous membranes.

Sensitising effects

Contact may cause skin sensitisation.

12. Ecological information

13. Disposal considerations

Advice on disposal

Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional deposer.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Hardener GL 1

Print date: 22.04.2013

Product code: 104095-GHS-2013

Page 5 of 7

Waste disposal number of waste from residues/unused products

080199 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; wastes not otherwise specified

14. Transport information

Land transport (ADR/RID)

14.1. 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

AMINES, LIQUID, CORROSIVE, N.O.S.

Other applicable information (land transport)

E2

Marine transport (IMDG)

14.1. UN number: UN2735
IMDG code: 8
Marine pollutant: NO
Hazard label: 8



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

Description of the goods

AMINES, LIQUID, CORROSIVE, N.O.S.

Other applicable information (marine transport)

E2

15. Regulatory information

Labelling

Danger symbols: C - Corrosive; Xn - Harmful

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Hardener GL 1

Print date: 22.04.2013

Product code: 104095-GHS-2013

Page 6 of 7



C - Corrosive



Xn - Harmful

R phrases

- 21/22 Harmful in contact with skin and if swallowed.
34 Causes burns.
43 May cause sensitisation by skin contact.
52/53 Harmful to aquatic organisms, 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.
28 After contact with skin, wash immediately with plenty of Wasser.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
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.

GHS labelling

Signal word:

Danger

Pictograms:

corrosion; exclamation mark



Hazard statements

- H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash ... thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
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.
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P330 Rinse mouth.
P331 Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P321 Specific treatment (see ... on this label).
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P352 Wash with plenty of soap and water.
P363 Wash contaminated clothing before reuse.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P310 Immediately call a POISON CENTER or doctor/physician.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Hardener GL 1

Print date: 22.04.2013

Product code: 104095-GHS-2013

Page 7 of 7

P321	Specific treatment (see ... on this label).
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.
P405	Store locked up.
P501	Dispose of contents/container to

National regulatory information

16. Other information

Full text of R phrases referred to under Sections 2 and 3

20	Harmful by inhalation.
21/22	Harmful in contact with skin and if swallowed.
22	Harmful if swallowed.
34	Causes burns.
35	Causes severe burns.
37/38	Irritating to respiratory system and skin.
38	Irritating to skin.
41	Risk of serious damage to eyes.
43	May cause sensitisation by skin contact.
51	Toxic to aquatic organisms.
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.

Full text of H statements referred to under Sections 2 and 3

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

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