

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Hardener W 300

Revision date: 21.03.2021

Product code: 100149

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Hardener W 300

1.2. Relevant identified uses of the substance or mixture and uses advised against**Use of the substance/mixture**

hardener

1.3. Details of the supplier of the safety data sheet

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 (0)7157 5304-60	Telefax: +49 (0)7157 5304-70
e-mail:	info@r-g.de	
Contact person:	Michael Groß	Telephone: +49 (0)7157 5304-60
e-mail:	urlaubmg@r-g.de	
Internet:	www.r-g.de	
Responsible Department:	Management	

1.4. Emergency telephone number: Vergiftungs-Informationen-Zentrale Freiburg
Tel: +49 (0)761 19240

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Skin corrosion/irritation: Skin Corr. 1

Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:

Causes severe skin burns and eye damage.

Harmful to aquatic life with long lasting effects.

2.2. Label elements**Regulation (EC) No. 1272/2008****Hazard components for labelling**

Polyetherdiamin / Polyetherdiamine

Signal word: Danger**Pictograms:****Hazard statements**

H314 Causes severe skin burns and eye damage.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

P310 Immediately call a POISON CENTER/doctor.

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P405 Store locked up.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients**3.1. Substances****Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
9046-10-0	Polyetherdiamine			100 %
			01-2119557899-12-XXXX	
	Skin Corr. 1, Aquatic Chronic 3; H314 H412			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
9046-10-0		Polyetherdiamine	100 %
	dermal: LD50 = 2980 mg/kg; oral: LD50 = 2885 mg/kg		

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

Move victim out of the area. Take off immediately all contaminated clothing.

After inhalation

If unconscious, storage and transport in stable lateral position.

After contact with skin

Immediately with water and soap and rinse thoroughly. Consult a physician if skin irritation or redness persists.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

After ingestion

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

4.2. Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3. Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**CO₂, extinguishing powder or water spray. Fight larger fires with water spray. Adapt fire extinguishing measures to the surroundings.**5.3. Advice for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

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Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately.
Do not allow entering drains or surface water.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General measures**

Keep people away and stay on windward side. Wear protective equipment. Keep unprotected persons away.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter the soil or subsoil.

6.3. Methods and material for containment and cleaning up**For containment**

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

Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Provide adequate ventilation.

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

The usual precautions when handling chemicals must be observed. Keep receptacles tightly sealed. Provide adequate ventilation/vapour extraction at the workplace.

Advice on protection against fire and explosion

Keep respiratory equipment at hand.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep/Store only in original container.

Hints on joint storage

Store separately from foodstuffs.

Further information on storage conditions

Keep container tightly closed and in a well-ventilated place.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****DNEL/DMEL values**

CAS No	Substance			
DNEL type	Exposure route	Effect	Value	
9046-10-0	Polyetherdiamine			
Worker DNEL, long-term	dermal	systemic	2,5 mg/kg bw/day	
Worker DNEL, long-term	inhalation	systemic	1,36 mg/m ³	

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PNEC values

CAS No	Substance	
Environmental compartment		Value
9046-10-0	Polyetherdiamine	
Freshwater		0,015 mg/l
Marine water		0,0142 mg/l
Freshwater sediment		0,132 mg/l
Marine sediment		0,125 mg/l
Secondary poisoning		6,93 mg/l
Micro-organisms in sewage treatment plants (STP)		7,5 mg/l
Soil		0,0176 mg/l

8.2. Exposure controls**Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Protective and hygiene measures

Keep away from food, drink and animal feeding stuffs. Immediately remove contaminated, soaked clothing. Wash hands before breaks and at the end of work. Avoid contact with eyes and skin.

Eye/face protection

Tightly sealed safety glasses.

Hand protection

The glove material must be impermeable and resistant to the product / substance / preparation. To minimize wetness in the glove due to perspiration, changing gloves during a shift is required. Before each new use of the glove, the tightness must be checked. Preventive skin protection by using skin protectant is recommended. Glove material: Gloves made of PVC The selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer. Penetration time of the glove material: The exact penetration time must be obtained from the protective glove manufacturer and must be observed.

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of insufficient ventilation, use respiratory protection.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state:	Liquid
Colour:	colourless
Odour:	Ammonia-like
pH-Value:	not determined

Changes in the physical state

Melting point:	-88 °C
Boiling point or initial boiling point and boiling range:	260 °C

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Flash point: 121 °C

Flammability

Solid/liquid: not applicable

Gas: not applicable

Explosive properties

The product is not explosive.

Auto-ignition temperature: 230 °C

Self-ignition temperature

Solid: not applicable

Gas: not applicable

Decomposition temperature: not determined

Oxidizing properties

Not oxidising.

Vapour pressure:
(at 20 °C) 1 hPaDensity (at 20 °C): 0,948 g/cm³

Water solubility: miscible

Solubility in other solvents

not determined

Partition coefficient n-octanol/water: not determined

Relative vapour density: not determined

Evaporation rate: not determined

9.2. Other information

Solid content: not determined

SECTION 10: Stability and reactivity**10.1. Reactivity**

No further relevant information available.

10.3. Possibility of hazardous reactions

Exothermic reaction with: Acid.

10.4. Conditions to avoid

No further relevant information available.

10.5. Incompatible materials

No further relevant information available.

10.6. Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

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Acute toxicity

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
9046-10-0	Polyetherdiamine				
	oral	LD50 2885 mg/kg	rat		
	dermal	LD50 2980 mg/kg	rabbit		

Irritation and corrosivity

Causes severe skin burns and eye damage.

Sensitising effects

no danger of sensitization.

Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

SECTION 12: Ecological information**12.1. Toxicity**

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

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
9046-10-0	Polyetherdiamine					
	Acute fish toxicity	LC50 15 mg/l	96 h	Leuciscus idus		
	Acute crustacea toxicity	EC50 80 mg/l	48 h	Daphnia		

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

not applicable

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

List of Wastes Code - 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

List of Wastes Code - used product

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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

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information**Land transport (ADR/RID)**

14.1. UN number: UN 2735
14.2. UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. (Polyetherdiamin)
14.3. Transport hazard class(es): 8
14.4. Packing group: II
 Limited quantity: 1 I
 Excepted quantity: E2

Inland waterways transport (ADN)

14.2. UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. (Polyetherdiamin)
 Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number: UN 2735
14.2. UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. (Polyetherdiamin)
14.3. Transport hazard class(es): 8
14.4. Packing group: II
 Limited quantity: 1 I
 Excepted quantity: E2
 EmS: F-A,S-B
 Segregation group: alkalis

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 2735
14.2. UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. (polypropylenediamine)
14.3. Transport hazard class(es): 8
14.4. Packing group: III
 Hazard label: 8



Special Provisions: A3 A803
 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

Other applicable information (air transport)

E1
 Passenger-LQ: Y840

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

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14.6. Special precautions for user

Warning: strongly corrosive.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3

National regulatory information

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D):

1 - slightly hazardous to water

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information**Changes**

This data sheet contains changes from the previous version in section(s): 1,3,4,5,6,7,8,9,10,11,12,14.

Abbreviations and acronymsADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Relevant H and EUH statements (number and full text)

H314 Causes severe skin burns and eye damage.

H412 Harmful to aquatic life with long lasting effects.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.