

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Epoxy resin "water-clear"**

Revision date: 20.04.2018

Product code: 107106

Page 1 of 10

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

Epoxy resin "water-clear"

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

Epoxy resin products, solvent-free, sensitising

**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	
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 Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Respiratory or skin sensitisation: Skin Sens. 1

Hazardous to the aquatic environment: Aquatic Chronic 2

Hazard Statements:

Causes skin irritation.

May cause an allergic skin reaction.

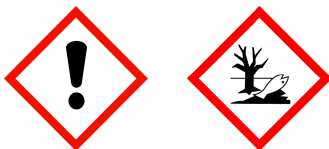
Causes serious eye irritation.

Toxic to aquatic life with long lasting effects.

**2.2. Label elements****Regulation (EC) No. 1272/2008****Hazard components for labelling**epoxy resin (number average molecular weight  $\leq$  700), reaction product: bisphenol-A-(epichlorhydrin)

Phenol, polymer with formaldehyde, glycidyl ether

Hexandioldiglycidylether

**Signal word:** Warning**Pictograms:****Hazard statements**

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Epoxy resin "water-clear"

Revision date: 20.04.2018

Product code: 107106

Page 2 of 10

H411 Toxic to aquatic life with long lasting effects.

### Precautionary statements

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P280 Wear protective gloves and eye/face protection.  
 P273 Avoid release to the environment.  
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

### Special labelling of certain mixtures

EUH205 Contains epoxy constituents. May produce an allergic reaction.

### 2.3. Other hazards

No information available.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)			50-100%
	500-033-5	603-074-00-8		
	Eye Irrit. 2, Skin Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H319 H315 H317 H411			
28064-14-4	Phenol, polymer with formaldehyde, glycidyl ether			10 - 25 %
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H319 H317 H411			
16096-31-4	1,6-Bis(2,3-epoxypropoxy)hexane			10 - 25 %
	240-260-4		01-2119463471-41	
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 3; H315 H319 H317 H412			

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

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

Remove contaminated clothing immediately.

#### After inhalation

consult a doctor.

#### After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs.

#### 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

Seek medical advice immediately.

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

The product does not contain any relevant quantities of substances with workplace-related limit values to be monitored.

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Epoxy resin "water-clear"

Revision date: 20.04.2018

Product code: 107106

Page 3 of 10

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media

Carbon dioxide (CO<sub>2</sub>), Extinguishing powder, Water spray jet.

#### Unsuitable extinguishing media

High power water jet.

### 5.2. Special hazards arising from the substance or mixture

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

### 5.3. Advice for firefighters

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

#### 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

Use personal protection equipment.

### 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

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

### 6.4. Reference to other sections

Carefully cleaning scene of an accident.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advice on safe handling

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

#### Advice on protection against fire and explosion

No special fire protection measures are necessary.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels

Keep/Store only in original container. 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.

### 7.3. Specific end use(s)

The product does not contain any relevant quantities of substances with workplace-related limit values to be monitored.

## SECTION 8: Exposure controls/personal protection

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Epoxy resin "water-clear"**

Revision date: 20.04.2018

Product code: 107106

Page 4 of 10

**8.1. Control parameters****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**

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.

Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

**Eye/face protection**

Suitable eye protection: goggles.

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Recommended material: FKM (fluoro rubber), @0802.B008198

Thickness of glove material: > 0,5mm

**Skin protection**

Wear suitable protective clothing.

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection. Combination filtering device (EN 14387) A-P2

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

Physical state:	Liquid
Colour:	light yellow
Odour:	characteristic

	Test method
pH-Value:	not determined
<b>Changes in the physical state</b>	
Melting point:	not determined
Initial boiling point and boiling range:	>200 °C
Flash point:	> 100 °C
<b>Flammability</b>	
Solid:	not applicable
Gas:	not applicable
Lower explosion limits:	not determined
Upper explosion limits:	not determined
<b>Auto-ignition temperature</b>	
Solid:	not applicable
Gas:	not applicable

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Epoxy resin "water-clear"**

Revision date: 20.04.2018

Product code: 107106

Page 5 of 10

Decomposition temperature: not determined

**Oxidizing properties**

Not oxidising.

Vapour pressure: 1 hPa  
(at 20 °C)Density (at 23 °C): 1,14 g/cm<sup>3</sup> ISO 2811Water solubility: The study does not need to be conducted  
because the substance is known to be  
insoluble in water.**Solubility in other solvents**

not determined

Partition coefficient: not determined

Viscosity / dynamic: 825 mPa·s ISO 3219  
(at 25 °C)

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 hazardous reaction when handled and stored according to provisions.

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

Response: Oxidising agent, strong, Alkalis (alkalis) , Acids .

**10.4. Conditions to avoid**

The product does not contain any relevant quantities of substances with workplace-related limit values to be monitored.

**10.5. Incompatible materials**

Oxidizing agents, strong.

**10.6. Hazardous decomposition products**

In case of fire may be liberated: toxic and caustic gases and vapours

**SECTION 11: Toxicological information****11.1. Information on toxicological effects**

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Epoxy resin "water-clear"

Revision date: 20.04.2018

Product code: 107106

Page 6 of 10

#### Acute toxicity

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)				
	oral	LD50 11400 mg/kg	Rat	GESTIS	
	dermal	LD50 > 22800 mg/kg	Rabbit	GESTIS	
28064-14-4	Phenol, polymer with formaldehyde, glycidyl ether				
	oral	LD50 > 2000 mg/kg	Rat		
	dermal	LD50 > 2000 mg/kg	Rat		
16096-31-4	1,6-Bis(2,3-epoxypropoxy)hexane				
	oral	LD50 3010 mg/kg	Rat	OECD 401	
	dermal	LD50 > 2000 mg/kg	Rat	OECD 402	

#### 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

Toxic 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
25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)					
	Acute fish toxicity	LC50 4,4 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	EPA-660/3-75-009	
	Acute algae toxicity	ErC50 9,4 mg/l	72 h	Scenedesmus capricornutum	EPA-660/3-75-009	
	Acute crustacea toxicity	EC50 2,8 mg/l	48 h	Daphnia magna	OECD 202	
	Acute bacteria toxicity	(> 100 mg/l)	3 h	Activated sludge		
16096-31-4	1,6-Bis(2,3-epoxypropoxy)hexane					
	Acute fish toxicity	LC50 30 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	OECD 203	
	Acute crustacea toxicity	EC50 39 - 57 mg/l	48 h	Daphnia magna	OECD 202	

#### 12.2. Persistence and degradability

The product has not been tested.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Epoxy resin "water-clear"

Revision date: 20.04.2018

Product code: 107106

Page 7 of 10

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)			
	OECD 301F	5%	28	Manufacturer
	Not readily biodegradable (according to OECD criteria)			
	OECD 301B	6-12%	28	Manufacturer
	Not readily biodegradable (according to OECD criteria)			
16096-31-4	1,6-Bis(2,3-epoxypropoxy)hexane			
	OECD 301D	47%	28	Manufacturer
	Readily biodegradable (according to OECD criteria).			

#### 12.3. Bioaccumulative potential

The product has not been tested.

#### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)	3,24

#### BCF

CAS No	Chemical name	BCF	Species	Source
25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)	31		Quantitative structure-activity relationship (QSAR)
16096-31-4	1,6-Bis(2,3-epoxypropoxy)hexane	3,57		

#### 12.4. Mobility in soil

The product has not been tested.

#### 12.5. Results of PBT and vPvB assessment

not applicable

#### 12.6. Other adverse effects

No information available.

#### Further information

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

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Advice on disposal

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.

##### 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

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Epoxy resin "water-clear"

Revision date: 20.04.2018

Product code: 107106

Page 8 of 10

#### Waste disposal number of contaminated packaging

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 3082  
**14.2. UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxydharz)  
**14.3. Transport hazard class(es):** 9  
**14.4. Packing group:** III  
 Hazard label: 9



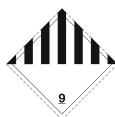
Classification code: M6  
 Special Provisions: 274 335 601  
 Limited quantity: 5 L  
 Transport category: 3  
 Hazard No: 90  
 Tunnel restriction code: E

#### Other applicable information (land transport)

E1

#### Inland waterways transport (ADN)

**14.1. UN number:** UN 3082  
**14.2. UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxydharz)  
**14.3. Transport hazard class(es):** 9  
**14.4. Packing group:** III  
 Hazard label: 9



Classification code: M6  
 Special Provisions: 274 335 601  
 Limited quantity: 5 L

#### Other applicable information (inland waterways transport)

E1

#### Marine transport (IMDG)

**14.1. UN number:** UN 3082  
**14.2. UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin)  
**14.3. Transport hazard class(es):** 9



## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Epoxy resin "water-clear"

Revision date: 20.04.2018

Product code: 107106

Page 9 of 10

**14.4. Packing group:**

III

Hazard label:

9



Marine pollutant:

Ja

Special Provisions:

274, 335

Limited quantity:

5 L

EmS:

F-A, S-F

**Other applicable information (marine transport)**

E1

**Air transport (ICAO-TI/IATA-DGR)****14.1. UN number:**

UN 3082

**14.2. UN proper shipping name:**ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(epoxy resin)**14.3. Transport hazard class(es):**

9

**14.4. Packing group:**

III

Hazard label:

9



Special Provisions:

A97 A158

Limited quantity Passenger:

30 kg G

IATA-packing instructions - Passenger:

964

IATA-max. quantity - Passenger:

450 L

IATA-packing instructions - Cargo:

964

IATA-max. quantity - Cargo:

450 L

**Other applicable information (air transport)**

E1

Passenger-LQ: Y964

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS:

yes



Danger releasing substance:

epoxy resin (number average molecular weight  $\leq$  700), reaction product:  
bisphenol-A-(epichlorhydrin)**14.6. Special precautions for user**

No information available.

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

not applicable

## SECTION 15: Regulatory information

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

2004/42/EC (VOC):

90 % (918 g/l)

**National regulatory information**

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Epoxy resin "water-clear"**

Revision date: 20.04.2018

Product code: 107106

Page 10 of 10

Employment restrictions:	Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).
Water contaminating class (D):	2 - clearly water contaminating
Skin resorption/Sensitization:	Causes allergic hypersensitivity reactions.

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information****Abbreviations and acronyms**

ADR: 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)**

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.
H412	Harmful to aquatic life with long lasting effects.
EUH205	Contains epoxy constituents. May produce an allergic reaction.

**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.

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