

Safety Data Sheet

according to Regulation (EC) No 1907/2006

EP gel coat colourless

Revision date: 24.08.2018

Product code: 120135-X

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

EP gel coat colourless

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

modified epoxy resin

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

Germ cell mutagenicity: Muta. 1B

Carcinogenicity: Carc. 1B

Hazardous to the aquatic environment: Aquatic Chronic 2

Hazard Statements:

Causes serious eye irritation.

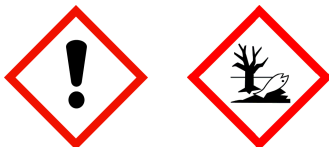
Causes skin irritation.

May cause an allergic skin reaction.

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-F-(epichlorhydrin)reaction product: bisphenol-A-(epichlorhydrin), (number average molecular weight $<$ 700),

1,6-Bis(2,3-epoxypropoxy)hexane

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

H319

Causes serious eye irritation.

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H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P362+P364 Take off contaminated clothing and wash it 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.

Special labelling of certain mixtures

EUH205 Contains epoxy constituents. May produce an allergic reaction.

Additional advice on labelling

The product is classified and labelled under the EC Directives/hazardous substances laws (GefStoffV).

2.3. Other hazards

The residual content of epichlorohydrin complies with the APME recommendations for modified epoxy resins . < 10 ppm (0,001%)

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Modifiziertes Epoxidharz

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
9003-36-5	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-F-(epichlorhydrin)			40-70%
	500-006-8	603-074-00-8	01-2119454392-40	
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H319 H317 H411			
25068-38-6	reaction product: bisphenol-A-(epichlorhydrin), (number average molecular weight < 700),			10-25%
	500-033-5	603-074-00-8		
	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			
64742-95-6	Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified			<1 %
	265-199-0	649-356-00-4		
	Carc. 1B, Muta. 1B, Asp. Tox. 1; H350 H340 H304			

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Change contaminated clothing. never give an unconscious person things thru the mouth

After inhalation

Following inhalation: Move victim to fresh air. Consult physician. If victim is at risk of losing consciousness,

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position and transport on their side.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. 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 plenty of water. Consult physician.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Carbon dioxide (CO₂).
Extinguishing powder.
Water spray.
Fight major fires with a water spray jet or alcohol-resistant foam.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Carbon monoxide Under certain conditions traces of toxic substances cannot be ruled out, e.g.: Chlorhydric gas (HCl).

5.3. Advice for firefighters

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.

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

Ensure adequate ventilation of the storage area.

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). Dispose of contaminated material as § 13 waste.

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

Provide adequate ventilation as well as local exhaustion at critical locations. When using do not eat, drink, smoke or take drugs.

Advice on protection against fire and explosion

No special measures are necessary.

Further information on handling

Observe the general hygiene measures when handling chemical substances. Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs. Take off contaminated clothing.

7.2. Conditions for safe storage, including any incompatibilities

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Requirements for storage rooms and vessels

Store in a place accessible by authorized persons only. Store in a cool dry place. 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.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****8.2. Exposure controls****Appropriate engineering controls**

Provide adequate ventilation/vapour extraction at the workplace. When thresholds are exceeded approved respiratory equipment must be worn.

Protective and hygiene measures

Take off immediately all contaminated clothing Avoid contact with skin and eyes . Wash hands before breaks and after work.

Eye/face protection

Tightly sealed safety glasses. (EN 166)

Hand protection

Wear protective gloves. (EN 374)

Material: NBR (Nitrile rubber). Butyl rubber.

Breakthrough time: See information supplied by the manufacturer.

Skin protection

Wear protective clothing. (EN 340)

Respiratory protection

Not necessary when the room is well ventilated.

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

Physical state:	viscous, liquid
Colour:	cloudy
Odour:	weak, characteristic

Test method**Changes in the physical state**

Flash point:	> 150 °C	ISO 2719
Ignition temperature:	> 140 °C	DIN 51794
Auto-ignition temperature		140 °C
Vapour pressure: (at 20 °C)	< 0,1 hPa	
Density (at 20 °C):	1,14-1,2 g/cm ³	DIN 53217
Water solubility:	not miscible / slightly soluble	
Viscosity / dynamic: (at 25 °C)	50.000 mPa·s	ISO 9371

9.2. Other information**SECTION 10: Stability and reactivity**

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10.4. Conditions to avoid

no decomposition when stored and handled properly

10.6. 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.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
9003-36-5	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-F-(epichlorhydrin)				
	oral	LD50 > 2000 mg/kg	Rat		
	dermal	LD50 > 2000 mg/kg	Rabbit		
25068-38-6	reaction product: bisphenol-A-(epichlorhydrin), (number average molecular weight < 700),				
	oral	LD50 2000 mg/kg	Mouse		
	dermal	LD50 1270 mg/kg	Mouse		
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	

Irritation and corrosivity

Irritation to skin, eyes, and mucous membranes.

Sensitising effects

Contact may cause skin sensitisation.

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

SECTION 12: Ecological information

12.1. Toxicity

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

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
9003-36-5	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-F-(epichlorhydrin)					
	Acute fish toxicity	LC50 mg/l	2,54	96 h		
25068-38-6	reaction product: bisphenol-A-(epichlorhydrin), (number average molecular weight < 700),					
	Acute fish toxicity	LC50	1,3 mg/l	96 h		
	Acute algae toxicity	ErC50	220 mg/l	96 h	Scenedesmus subspicatus	
	Acute crustacea toxicity	EC50	2,8 mg/l	48 h	Daphnia magna (Big water flea)	
	Acute bacteria toxicity	(3,6 mg/l)			Leuciscus idus (golden orfe)	
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 mg/l	39 - 57	48 h	Daphnia magna	OECD 202

12.2. Persistence and degradability

Product is biodegradable with difficulty.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
9003-36-5	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-F-(epichlorhydrin)			
	OECD 301B	16%	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

BCF

CAS No	Chemical name	BCF	Species	Source
16096-31-4	1,6-Bis(2,3-epoxypropoxy)hexane	3,57		

Further information

Do not let the product enter the groundwater, open water, or the sewerage system.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Dispose of waste according to applicable legislation. 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 legislation.

SECTION 14: Transport information

Land transport (ADR/RID)

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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



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
 : 274 - 601
 : 3
 : E

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
14.4. Packing group: III
 Hazard label: 9



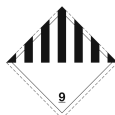
Marine pollutant: yes
 Special Provisions: 274, 335
 Limited quantity: 5 L
 EmS: F-A, S-F

Other applicable information (marine transport)

E1
 : 274, 909, 944

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

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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

: Y914

: A97

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes

**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 28: Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified

National regulatory information

Water contaminating class (D): 2 - clearly water contaminating

Additional information

APME document: "Epoxidharze und Härter (Toxikologie, Arbeitssicherheit, Umwelt)" ("Epoxy resins and hardeners (toxicology, work safety, environment)")

SECTION 16: Other information**Relevant H and EUH statements (number and full text)**

H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H340	May cause genetic defects.
H350	May cause cancer.
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

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

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violation of any patents.

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