

**Safety Data Sheet**

according to UK REACH Regulation

**30 Min.-Epoxy (hardener)**

Revision date: 10.02.2022

Product code: 154310-GHS-2013

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

30 Min.-Epoxy (hardener)

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

epoxy resin 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	
Internet:	www.r-g.de	
Responsible Department:	Management	
<b>1.4. Emergency telephone number:</b>	Vergiftungs-Informations-Zentrale Freiburg	
	Tel: +49 (0)761 19240	

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****GB CLP Regulation**

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Respiratory or skin sensitisation: Skin Sens. 1

Reproductive toxicity: Repr. 2

Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

Suspected of damaging the unborn child.

Harmful to aquatic life with long lasting effects.

**2.2. Label elements****GB CLP Regulation****Signal word:**

Danger

**Pictograms:****Hazard statements**

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H361d	Suspected of damaging the unborn child.
H412	Harmful to aquatic life with long lasting effects.

**Precautionary statements**

P321	Sonderbehandlung (siehe ergänzende Erste-Hilfe-Anweisungen auf diesem Etikett).
P308+P313	IF exposed or concerned: Get medical advice/attention.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P264	Wash hands thoroughly after handling.

**2.3. Other hazards**

No information available.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures**

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**Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
	Reaction products of pentaerythritol, propoxylated and 1-chloro-2,3-epoxypropane with hydrogen sulfide			84 - 94%
	701-196-7		01-2120118957-46	
	Skin Sens. 1, Aquatic Chronic 3; H317 H412			
90-72-2	2,4,6-tris(dimethylaminomethyl)phenol			6 - 16%
	202-013-9	603-069-00-0	01-2119560597-27	
	Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2; H302 H315 H319			
149-57-5	2-ethylhexanoic acid			1 - 9%
	205-743-6	607-230-00-6		
	Repr. 2; H361d			

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		
90-72-2	202-013-9	2,4,6-tris(dimethylaminomethyl)phenol	6 - 16% %
	oral: ATE = 500 mg/kg		
149-57-5	205-743-6	2-ethylhexanoic acid	1 - 9% %
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = 3000 mg/kg		

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

Immediately remove any clothing contaminated with product. IF exposed or concerned: Get medical advice/attention.

**After inhalation**

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. Medical treatment necessary.

**After contact with skin**

Wash skin with plenty of water. Remove contaminated clothing. If skin irritation occurs: Seek medical advice/attention.

**After contact with eyes**

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

**After ingestion**

Observe risk of aspiration if vomiting occurs. Rinse mouth immediately and drink plenty of water. Induce vomiting when the affected person is not unconscious. Medical treatment necessary.

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

Symptoms/effects after skin contact: Irritation. May cause allergic skin reactions.

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

Provide symptomatic treatment.

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

Water spray. Dry powder. Foam. Carbon dioxide.

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

Possible release of toxic fumes. Carbon dioxide. Carbon monoxide. Nitrogen oxides.

**5.3. Advice for firefighters**

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

**Additional information**

Use water spray jet to protect personnel and to cool endangered containers. 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**

Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

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**6.2. Environmental precautions**

Do not allow to enter sewage system/surface water/groundwater. Do not allow to enter subsoil/soil/subsoil.

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

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Provide adequate ventilation. Dispose contaminated material as waste according to item 13.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

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

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

**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 container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations.

**Hints on joint storage**

No special measures are necessary.

**Further information on storage conditions**

Keep cool. Store in the original packaging.

**7.3. Specific end use(s)**

No further relevant information available.

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

CAS No	Substance	Exposure route	Effect	Value
90-72-2	2,4,6-tris(dimethylaminomethyl)phenol			
Worker DNEL,		inhalation		0,31 mg/m <sup>3</sup>

**PNEC values**

CAS No	Substance	Value
90-72-2	2,4,6-tris(dimethylaminomethyl)phenol	
Freshwater		0,84 mg/l

**Additional advice on limit values**

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

**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**

Protective goggles

**Hand protection**

Wear suitable gloves. The glove material must be impermeable and resistant to the product / substance / preparation.

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Due to the lack of tests, no recommendation can be made on the glove material for the product / preparation / chemical mixture. Selection of the glove material considering the breakthrough times, permeation rates and degradation.

**Skin protection**

Wear suitable protective clothing.

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

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

Physical state: Liquid  
 Colour: light yellow  
 Odour: like: Mercaptan

**Changes in the physical state**

Flash point: &gt; 93.33 °C

**Solubility in other solvents**

not determined

**9.2. Other information**

No further relevant information available.

**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**

Exothermic reaction with: Oxidising agent

**10.4. Conditions to avoid**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**10.5. Incompatible materials**

Acids. Alkalis. Oxidizing agents.

**10.6. Hazardous decomposition products**

Carbon dioxide. Carbon monoxide. Nitrogen oxides. Oxides of sulfur. Hydrogen sulfide.

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

ATE (oral) 500,0 mg/kg; ATE (inhalation vapour) 11,00 mg/l; ATE (inhalation aerosol) 1,500 mg/l

**Acute toxicity**

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
90-72-2	2,4,6-tris(dimethylaminomethyl)phenol				
	oral	ATE 500 mg/kg			
149-57-5	2-ethylhexanoic acid				
	oral	LD50 mg/kg 3000	Rat		
	dermal	LD50 mg/kg > 2000	Rabbit		

**Irritation and corrosivity**

On the skin: Causes skin irritation. Serious eye damage/irritation: Causes severe eye irritation.

**Sensitising effects**

Respiratory or skin sensitisation: May cause an allergic skin reaction.

**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 life with long lasting effects.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
149-57-5	2-ethylhexanoic acid					
	Acute fish toxicity	LC50 mg/l	> 250	96 h	Leuciscus idus	
	Acute algae toxicity	ErC50	61 mg/l	72 h		
	Acute crustacea toxicity	EC50	85,4 mg/l	48 h	Daphnia magna	

**12.2. Persistence and degradability**

Not readily biodegradable.

**12.3. Bioaccumulative potential**

The product has not been tested.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
149-57-5	2-ethylhexanoic acid	2,7

**12.4. Mobility in soil**

No further relevant information available.

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

not applicable

**12.6. Other adverse effects**

No information available.

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

Do not allow to enter into surface water or drains. 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

**Contaminated packaging**

Do not reuse empty containers. Dispose of in accordance with local regulations.

**SECTION 14: Transport information****Land transport (ADR/RID)****14.2. UN proper shipping name:**

No dangerous good in sense of these transport regulations.

**Inland waterways transport (ADN)****14.2. UN proper shipping name:**

No dangerous good in sense of these transport regulations.

**Marine transport (IMDG)****14.2. UN proper shipping name:**

No dangerous good in sense of these transport regulations.

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

UN 3334

**14.2. UN proper shipping name:**

AVIATION REGULATED LIQUID, N.O.S. (REACTION PRODUCTS OF PENTAERYTHRITOL, PROPOXYLATED AND 1-CHLORO-2,3-EPOXYPROPANE WITH HYDROGEN SULFIDE; ,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL)

**14.3. Transport hazard class(es):**

9

**14.4. Packing group:**

III

Hazard label:

9



Special Provisions:

A27

Limited quantity Passenger:

30 kg G

Passenger LQ:

Y964

Excepted quantity:

E1

IATA-packing instructions - Passenger:

964

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IATA-packing instructions - Cargo: 964  
 IATA-max. quantity - Cargo: 220 L

**Other applicable information (air transport)**

ERG-Code: 9A

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**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**

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). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D): 3 - highly hazardous to water

**15.2. Chemical safety assessment**

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

**SECTION 16: Other information****Changes**

This data sheet contains changes from the previous version in section(s): 15.

**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)**

H302 Harmful if swallowed.  
 H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H319 Causes serious eye irritation.  
 H361d Suspected of damaging the unborn child.  
 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.

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