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	30 MinEpoxy (hardener)		
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SECTION 1: Identification of the	he substance/mixture and of the company/ur	ndertaking	
1.1. Product identifier			
30 MinEpoxy (ha	rdener)		
1.2. Relevant identified uses of the	ne substance or mixture and uses advised agains	<u>t</u>	
Use of the substance/mixture			
Hardener (Crosslir	nker )		
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:	+49-7157-530460	Telefax:+49-7157-530470	
e-mail:	info@r-g.de		
Internet:	www.r-g.de		
Responsible Department:	Management		
<u>1.4. Emergency telephone</u> number:	Vergiftungs-Informations-Zentrale Freiburg Tel: +49 (0)761 19240		
SECTION 2: Hazards identifica	ation		

# 2.1. Classification of the substance or mixture

Indications of danger: Xn - Harmful, Xi - Irritant R phrases: Harmful by inhalation and if swallowed. Irritating to eyes, respiratory system and skin. May cause sensitisation by skin contact. Harmful: may cause lung damage if swallowed.

# **GHS** classification

Hazard categories: Acute toxicity: Acute Tox. 4 Acute toxicity: Acute Tox. 4 Skin corrosion/irritation: Skin Irrit. 2 Serious eye damage/eye irritation: Eye Irrit. 2 Respiratory/skin sensitization: Skin Sens. 1 Specific target organ toxicity - single exposure: STOT SE 3 Aspiration hazard: Asp. Tox. 1 Hazard Statements: Harmful if swallowed or if inhaled. May be fatal if swallowed and enters airways. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause respiratory irritation.

# 2.2. Label elements

Signal word:	Danger
Pictograms:	GHS07-GHS08

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Hazard statements		
H302+H332	Harmful if swallowed or if inhaled.	
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.	
H335	May cause respiratory irritation.	
Precautionary statemen	ts	
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.	
P264	Wash hands thoroughly after handling.	
P270	Do no eat, drink or smoke when using this product.	
P271	Use only outdoors or in a well-ventilated area.	
P272	Contaminated work clothing should not be allowed out of the workplace.	
P280	Wear protective gloves/protective clothing/eye protection/face protection.	
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.	
P330	Rinse mouth.	
P331	Do NOT induce vomiting.	
P302+P352	IF ON SKIN: Wash with plenty of water.	
P321	Specific treatment (see Hazard statements on this label).	
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.	
P362	Take off contaminated clothing.	
P363	Wash contaminated clothing before reuse.	
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.	
P312	Call a POISON CENTER/doctor if you feel unwell.	
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.	
P403+P233	Store in a well-ventilated place. Keep container tightly closed.	
P403+P233 P405 P501 .3. Other hazards	Store in a weil-ventilated place. Keep container tignity closed. Store locked up. Dispose of waste according to applicable legislation.	

2.3. Other hazards No information available.

# **SECTION 3: Composition/information on ingredients**

# 3.2. Mixtures

# Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification	
Index No	GHS classification	
REACH No		
	Mercaptane / Amine Blend	100 %
	Xn - Harmful, Xi - Irritant R20/22-36/37/38-43-65	
	Acute Tox. 4, Acute Tox. 4, Eye Irrit. 2, STOT SE 3, Skin Irrit. 2, Skin Sens. 1, Asp. Tox. 1; H332 H302 H319 H335 H315 H317 H304	

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

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## **SECTION 4: First aid measures**

# 4.1. Description of first aid measures

#### After inhalation

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

#### 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. Medical treatment necessary.

#### 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

No information available.

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

No information available.

# **SECTION 5: Firefighting measures**

## 5.1. Extinguishing media

## Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

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

The product itself does not burn. Vapours can form explosive mixtures with air. In case of fire may be liberated: Gases/vapours, toxic Gases/vapours, irritant

## 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.

## 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

# 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

Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13

## SECTION 7: Handling and storage

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## 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.

## Advice on storage compatibility

No special measures are necessary.

## 7.3. Specific end use(s)

Hardener (Crosslinker)

### **SECTION 8: Exposure controls/personal protection**

### 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.

#### 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

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		Test method	
pH-Value:	not determined		
Changes in the physical state			
Melting point:	not determined		
Initial boiling point and boiling range:	not determined		
Flash point:	> 93 °C		
Flammability			
Solid:	not applicable		
Gas:	not applicable		
Lower explosion limits:	not determined		
Upper explosion limits:	not determined		
Auto-ignition temperature			
Solid:	not applicable		
Gas:	not applicable		
Decomposition temperature:	not determined		
Oxidizing properties Not oxidizing.			
Vapour pressure:	not determined		
Density:	1,13 g/cm³		
Water solubility:	insoluble		
Solubility in other solvents			
not determined Partition coefficient:	not determined		
Vapour density:	not determined		
Evaporation rate:	not determined		
.2. Other information			
Solid content:	not determined		
	not determined		
ECTION 10: Stability and reactivity			
0.1. Reactivity			

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

none

# 10.5. Incompatible materials

No information available.

## 10.6. Hazardous decomposition products

Contains: Mercaptan. Formation of: Hydrogen sulfide (H2S)

# **SECTION 11: Toxicological information**

# 11.1. Information on toxicological effects

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## ATEmix calculated

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

#### Acute toxicity

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
	Mercaptane / Amine Blend				
	oral	ATE	500 mg/kg		
	inhalative vapour	ATE	11 mg/l		
	inhalative aerosol	ATE	1,5 mg/l		

#### Additional information on tests

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

## **SECTION 12: Ecological information**

## 12.1. Toxicity

According to the criteria of the European classification and labelling system, the substance/the product has not to be labelled as "dangerous for the environment".

# 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

The product has not been tested.

# 12.6. Other adverse effects

No information available.

### **Further information**

No special environmental measures are necessary.

# **SECTION 13: Disposal considerations**

# 13.1. Waste treatment methods

#### Advice on disposal

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

# Contaminated packaging

This material and its container must be disposed of as hazardous waste. Handle contaminated packages in the same way as the substance itself.

# SECTION 14: Transport information

Land transport (ADR/RID)	
<u>14.1. UN number:</u>	UN 3334
14.2. UN proper shipping name:	AVIATION REGULATED LIQUID, N.O.S. (Mercaptane / Amine Blend)
14.3. Transport hazard class(es):	9
14.4. Packing group:	-
Classification code:	M11
Inland waterways transport (ADN)	

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<u>14.1. UN number:</u>	UN 3334	
14.2. UN proper shipping name:	AVIATION REGULATED LIQUID, N.O.S. (Mercaptane / Amine Blend)	
14.3. Transport hazard class(es):	9	
14.4. Packing group:	N-S	
Classification code:	M11	
Marine transport (IMDG)		
<u>14.1. UN number:</u>	UN 3334	
14.2. UN proper shipping name:	AVIATION REGULATED LIQUID, N.O.S. (Mercaptane / Amine Blend)	
14.3. Transport hazard class(es):	9	
14.4. Packing group:	-	
Hazard label:	9	
	9	
Special Provisions: Limited quantity:	960	
EmS:	-	
Other applicable information (marine tra no potential risks -	ansport)	
Air transport (ICAO)		
<u>14.1. UN number:</u>	UN 3334	
14.2. UN proper shipping name:	AVIATION REGULATED LIQUID, N.O.S. (Mercaptane / Amine Blend)	
14.3. Transport hazard class(es):	9	
<u>14.4. Packing group:</u>	III	
Hazard label:	9	
	9	
Special Provisions:	A27	
Limited quantity Passenger:	30 kg G	
IATA-packing instructions - Passenger: IATA-max. quantity - Passenger:	964 450 L	
IATA-packing instructions - Cargo:	964	
IATA-max. quantity - Cargo:	450 L	
Other applicable information (air transp no potential risks E1 The thermal decomposition o Y964	<b>ort)</b> of the substance can give rise to compounds of unknown formulation.:	
14.5. Environmental hazards		
ENVIRONMENTALLY HAZARDOUS:	no	
<b>14.6. Special precautions for user</b> No information available.		
14.7. Transport in bulk according to Annex	II of MARPOL73/78 and the IBC Code	
not applicable		
SECTION 15: Regulatory information		

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5.1. Safety, health	and environmental regu	ulations/legislation specific for the substance or mixture		
National regulate	ory information			
Employment restr	ictions:	Observe employment restrictions for young people. Observe employment		
		restrictions for child bearing mothers and nursing.		
Water contaminat		1 - slightly water contaminating		
5.2. Chemical safet				
Cher	nical safety assessment	ts for substances in this mixture were not carried out.		
ECTION 16: Othe	r information			
Abbreviations an	d acronyms			
	-	e transport des marchandises dangereuses par Route		
•		erning the International Carriage of Dangerous Goods by Road)		
		e Code for Dangerous Goods		
	.: International Air Trans			
		System of Classification and Labelling of Chemicals		
		y of Existing Commercial Chemical Substances		
	: Chemical Abstracts Se	otified Chemical Substances		
	): Lethal concentration, §			
	): Lethal dose, 50%			
	ases referred to under	Sections 2 and 3		
20/22	Harmful by inhalation a	and if swallowed.		
36/37/38	Irritating to eyes, respi	iratory system and skin.		
43	May cause sensitisation	•		
65	Harmful: may cause lu	ung damage if swallowed.		
	ements referred to und			
H302	Harmful if swa			
H302+H332		allowed or if inhaled.		
H304		if swallowed and enters airways.		
H315 H317	Causes skin in			
H319	-	n allergic skin reaction. us eye irritation.		
H332	Harmful if inha			
H335		espiratory irritation.		
Further Informati	-			
		ribes exclusively the safety requirements of the product and is based on		
		The information is intended to give you advice about the safe handling of		
The	nesent-day knowledge.	fety data sheet, for storage, processing, transport and disposal. The		
The our p		nety data sheet, for storage, processing, transport and disposal. The		
The our p the p infor	roduct named in this saf	erred to other products. In the case of mixing the product with other		
The our p the p infor prod	roduct named in this saf	erred to other products. In the case of mixing the product with other ocessing, the information on this safety data sheet is not necessarily valid		

data sheet.)