

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 23.05.2024

Version number 8 (replaces version 7)

Revision: 23.05.2024

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

**Trade name** Epoxy Universal, Component B**Article number:** 5590, 5591, 5592

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

**Application of the substance / the mixture** Coating

#### 1.3 Details of the supplier of the safety data sheet

**Manufacturer/Supplier:**

Remmers GmbH  
Bernhard-Remmers-Str. 13  
D-49624 Lönningen / Germany  
Tel.: +49(0)5432/83-0  
Fax: +49(0)5432/3985

Remmers (UK) Limited  
Unit 4 , Lloyds Court  
Manor Royal, Crawley – West Sussex RH10 9QU  
fon +44 (0) 1293 594 010  
fax +44 (0) 1293 594 037

**Information department:**

Product Safety department: Phone: +44 (0) 1293 594 010  
Email: sales@remmers.co.ukk

#### 1.4 Emergency telephone number:

National Poisons Information Service (NPIS):  
In England and Wales: NHS 111 - dial 111  
In Scotland: NHS 24 - dial 111

24h-Transport Emergency Contact Phone Number:  
within USA and Canada: 1-800-424-9300  
outside USA and Canada: 001-703-527-3887

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

**Classification according to Regulation (EC) No 1272/2008**

Flam. Liq. 3	H226 Flammable liquid and vapour.
Skin Irrit. 2	H315 Causes skin irritation.
Eye Irrit. 2	H319 Causes serious eye irritation.
Skin Sens. 1	H317 May cause an allergic skin reaction.
STOT SE 3	H335 May cause respiratory irritation.
STOT RE 2	H373 May cause damage to the hearing organs through prolonged or repeated exposure.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

#### 2.2 Label elements

**Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the GB CLP regulation.

**Hazard pictograms**

GHS02 GHS07 GHS08

**Signal word** Warning

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#### Hazard-determining components of labelling:

epoxy resin

xylene

hydrocarbons, C9, aromatics

#### Hazard statements

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

H373 May cause damage to the hearing organs through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

#### Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.  
No smoking.

P240 Ground and bond container and receiving equipment.

P241 Use explosion-proof [electrical/ventilating/lighting] equipment.

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

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

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

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P321 Specific treatment (see on this label).

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

#### 2.3 Other hazards

#### Results of PBT and vPvB assessment

**PBT:** Not applicable.

**vPvB:** Not applicable.

**Determination of endocrine-disrupting properties** Not applicable.

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

#### 3.2 Mixtures

**Description:** Mixture of the substances listed below with harmless additions.

Dangerous components [% w/w]:		
CAS: 25036-25-3	epoxy resin Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	≥70-≤85%
CAS: 1330-20-7 EINECS: 215-535-7 Reg.nr.: 01-2119488216-32-XXXX	xylene Flam. Liq. 3, H226; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	≥10-<20%
EC number: 918-668-5 Reg.nr.: 01-2119455851-35-XXXX	hydrocarbons, C9, aromatics Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; STOT SE 3, H335-H336, EUH066	≥2.5-<5%
CAS: 100-41-4 EINECS: 202-849-4 Index number: 601-023-00-4	ethylbenzene Flam. Liq. 2, H225; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H332	≥2.5-<5%

#### Additional information

Benzene content: < 0,1% Note P is applicable. It is not necessary to classify nor to mark the product as carcinogenic.

For the wording of the listed hazard phrases refer to section 16.

### \* SECTION 4: First aid measures

#### 4.1 Description of first aid measures

**General information** Immediately remove any clothing soiled by the product.

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### **After inhalation**

Supply fresh air and call for doctor for safety reasons.

In case of unconsciousness bring patient into stable side position for transport.

### **After skin contact**

Do not use solvents or thinners!

Wash immediately with water and soap and rinse thoroughly.

Wash off immediately with water.

### **After eye contact**

Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.

### **After swallowing**

Rinse out mouth immediately with plenty of water and administer plenty of water in small swallows (diluting effect).

### **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 agents**

CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

**For safety reasons unsuitable extinguishing agents** Water with a full water jet.

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

May be released in case of fire

Carbon monoxide (CO)

Under certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:

Hydrogen chloride (HCl)

Formation of poisonous gases during heating or in fires.

Vapours are heavier than air and spread out over the ground. Ignition over greater distances is possible.

### **5.3 Advice for firefighters**

#### **Protective equipment:**

Wear self-contained breathing apparatus.

Wear full protective suit.

Put on breathing apparatus.

#### **Additional information**

Cool endangered containers with water spray jet.

Collect contaminated fire fighting water separately. It must not enter drains.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

## **SECTION 6: Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

Keep away from ignition sources

Put on breathing apparatus.

Wear protective equipment. Keep unprotected persons away.

### **6.2 Environmental precautions:**

Do not allow to enter the ground/soil.

Inform responsible authorities in case product reaches bodies of water or sewage system.

### **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of contaminated material as waste according to item 13.

Ensure adequate ventilation.

### **6.4 Reference to other sections**

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

## **SECTION 7: Handling and storage**

### **7.1 Precautions for safe handling**

Use only in well ventilated areas.

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Ensure good ventilation/exhaust in workplaces.  
Avoid the formation of aerosols.

#### Information about protection against explosions and fires:

Fumes can combine with air to form an explosive mixture.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Keep breathing equipment ready.

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

##### Storage

##### Requirements to be met by storerooms and containers:

Ventilate storage and work rooms sufficiently.

Install solvent resistant, sealed floor.

##### Information on storage in a common storage facility:

Suitable material for containers and pipes: Light metals and their alloys.

##### Further information about storage conditions:

Store container in a well ventilated position.

Protect from frost.

Keep container tightly closed.

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

##### Components with limit values that require monitoring at the workplace:

##### CAS: 1330-20-7 xylene

WEL	Short-term value: 441 mg/m <sup>3</sup> , 100 ppm Long-term value: 220 mg/m <sup>3</sup> , 50 ppm Sk; BMGV
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##### CAS: 100-41-4 ethylbenzene

WEL	Short-term value: 552 mg/m <sup>3</sup> , 125 ppm Long-term value: 441 mg/m <sup>3</sup> , 100 ppm Sk
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##### Ingredients with biological limit values:

##### CAS: 1330-20-7 xylene

BMGV	650 mmol/mol creatinine Medium: urine Sampling time: post shift Parameter: methyl hippuric acid
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**Additional information:** The lists that were valid during compilation were used as a basis.

#### 8.2 Exposure controls

**Appropriate engineering controls** No further data; see section 7.

##### Individual protection measures, such as personal protective equipment

##### General protective and hygienic measures

Do not eat, drink or smoke while working.

Apply solvent-resistant skin protection preparation before beginning work.

Keep away from food, beverages and animal feed.

Immediately remove soiled, saturated clothing.

Wash hands before pauses and after work.

Store protective clothing separately.

Avoid contact with eyes and skin.

The following indication regarding the personal protective equipment are to be considered as suggestions. The selection of the necessary personal protective equipment is to be evaluated by the employer depending on the types of operations and the local circumstances. If a risk assessment on-site shows that there is no risk for employees, the personal protective equipment is not required or the amount of the PPE can be adapted accordingly.

##### Respiratory equipment:

Filter A/P2.

Only use ambient air independent respiratory equipment in pits, shafts and silos!

In case of brief exposure or low pollution load, use respiratory protection equipment with filter. In case of intensive or longer exposure, use self-contained respiratory protection equipment.

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#### Hand protection

Solvent resistant gloves  
Long cuffed gloves  
Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

#### Material of gloves

Butyl rubber, BR  
Nitrile rubber, NBR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

#### Penetration time of glove material

The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

#### Eye/face protection

if there is a risk of splashes  
Tightly sealed safety glasses.

#### Body protection:

Protective work clothing.  
Apron

### \* SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

##### General Information

Physical state	Fluid
Colour:	Clear
Odour:	Solvent-like
Odour threshold:	Not determined.
Melting point/freezing point:	Not determined
Boiling point or initial boiling point and boiling range	137 °C
Flammability	Flammable.
Lower and upper explosion limit	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	38 °C
Auto-ignition temperature:	not applicable
Decomposition temperature:	Not determined.
pH	Not determined.
Viscosity:	
Kinematic viscosity	Not determined.
dynamic at 20 °C:	5,650 mPas
Solubility	
Water:	Not miscible or difficult to mix
Partition coefficient n-octanol/water (log value)	Not determined.
Vapour pressure:	Not determined.
Density and/or relative density	
Density at 20 °C:	1.08 g/cm <sup>3</sup>
Relative density	Not determined.
Vapour density	Not determined.

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<b>9.2 Other information</b>	
<b>Appearance:</b>	
<b>Form:</b>	Fluid
<b>Important information on protection of health and environment, and on safety.</b>	
<b>Explosive properties:</b>	Product is not explosive. However, formation of dangerous explosive vapour/air mixtures is possible.
<b>Solvent separation test</b>	< 3 %
<b>Change in condition</b>	
<b>Evaporation rate</b>	Not determined.
<b>Information with regard to physical hazard classes</b>	
<b>Explosives</b>	Void
<b>Flammable gases</b>	Void
<b>Aerosols</b>	Void
<b>Oxidising gases</b>	Void
<b>Gases under pressure</b>	Void
<b>Flammable liquids</b>	Flammable liquid and vapour.
<b>Flammable solids</b>	Void
<b>Self-reactive substances and mixtures</b>	Void
<b>Pyrophoric liquids</b>	Void
<b>Pyrophoric solids</b>	Void
<b>Self-heating substances and mixtures</b>	Void
<b>Substances and mixtures, which emit flammable gases in contact with water</b>	Void
<b>Oxidising liquids</b>	Void
<b>Oxidising solids</b>	Void
<b>Organic peroxides</b>	Void
<b>Corrosive to metals</b>	Void
<b>Desensitised explosives</b>	Void

## SECTION 10: Stability and reactivity

**10.1 Reactivity** No further relevant information available.

### 10.2 Chemical stability

#### Thermal decomposition / conditions to be avoided:

No decomposition if handled and stored according to specifications.

Avoid: heat, flames, sparks

### 10.3 Possibility of hazardous reactions

Ignition-capable vapour-air mixtures may develop if stored in large containers or above room temperature

Used empty containers may contain product gases which form explosive mixtures with air

**10.4 Conditions to avoid** No further relevant information available.

**10.5 Incompatible materials:** No further relevant information available.

**10.6 Hazardous decomposition products:** Irritating gases/vapours

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

**Acute toxicity:** Based on available data, the classification criteria are not met.

**LD/LC50 values that are relevant for classification:** No further relevant information available.

**Skin corrosion/irritation:** Causes skin irritation.

**Serious eye damage/irritation:** Causes serious eye irritation.

**Sensitisation:** May cause an allergic skin reaction.

**Germ cell mutagenicity:** Based on available data, the classification criteria are not met.

**Carcinogenicity:** Based on available data, the classification criteria are not met.

**Reproductive toxicity:** Based on available data, the classification criteria are not met.

**STOT-single exposure:** May cause respiratory irritation.

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**STOT-repeated exposure:**

May cause damage to the hearing organs through prolonged or repeated exposure.

**Aspiration hazard:** Based on available data, the classification criteria are not met.**Experience with humans:**

High concentrations may cause tiredness and dizziness.

Frequent or longer lasting skin contact may degrease and dry out skin which may lead to skin irritation and inflammation (dermatitis).

**11.2 Information on other hazards****Endocrine disrupting properties**

None of the ingredients is listed.

\* **SECTION 12: Ecological information****12.1 Toxicity****Aquatic toxicity:** No further relevant information available.**12.2 Persistence and degradability** No further relevant information available.**12.3 Bioaccumulative potential** No further relevant information available.**12.4 Mobility in soil** No further relevant information available.**12.5 Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

**12.7 Other adverse effects** No further relevant information available.**Remark:** Harmful to fish**Additional ecological information:****General notes:**

Do not allow product to reach ground water, bodies of water or sewage system.

Hazardous to drinking water even if small quantities leak into soil.

Harmful to aquatic organisms

\* **SECTION 13: Disposal considerations****Recommendation**

Not hardened material must be disposed of as hazardous waste according to official regulations.

Hardened product remains may be disposed of as building rubble or put into household garbage.

The given refuse codes are recommendations based upon the intended use of the product. Because of special use and disposal conditions at the user's, other codes may apply under other conditions.

**European waste catalogue**

08 01 11\* waste paint and varnish containing organic solvents or other hazardous substances

**Uncleaned packaging:****Recommendation:**

Disposal must be made according to official regulations.

Packaging can be reused or recycled after cleaning.

**SECTION 14: Transport information****14.1 UN number or ID number****ADR, ADN, IMDG****IATA**

Void

UN1263

**14.2 UN proper shipping name****ADR, ADN, IMDG****IATA**

Void

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<b>14.3 Transport hazard class(es)</b>	
<b>ADR, ADN, IMDG Class</b>	Void
<b>IATA</b>	
	
<b>Class Label</b>	3 Flammable liquids. 3
<b>14.4 Packing group</b>	Void
<b>ADR, IMDG IATA</b>	III
<b>14.5 Environmental hazards:</b>	
<b>Marine pollutant:</b>	No
<b>14.6 Special precautions for user</b>	Not applicable.
<b>14.7 Maritime transport in bulk according to IMO instruments</b>	Not applicable.
<b>UN "Model Regulation":</b>	Void

## \* SECTION 15: Regulatory information

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
**Poisons Act**

<b>Regulated explosives precursors</b>
None of the ingredients is listed.
<b>Regulated poisons</b>
None of the ingredients is listed.
<b>Reportable explosives precursors</b>
None of the ingredients is listed.
<b>Reportable poisons</b>
None of the ingredients is listed.

**Directive 2012/18/EU**

**Named dangerous substances - ANNEX I** None of the ingredients is listed.

**Seveso category** P5c FLAMMABLE LIQUIDS

**Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t

**Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t

**REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

<b>DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II</b>
None of the ingredients is listed.

**REGULATION (EU) 2019/1148**

<b>Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))</b>
None of the ingredients is listed.
<b>Annex II - REPORTABLE EXPLOSIVES PRECURSORS</b>
None of the ingredients is listed.

**National regulations**

**Other regulations, limitations and prohibition ordinances**

APME document: "Epoxy resins and curing agents: Toxicology, working safety, environment."

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**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This data is based on our present state of knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally valid contractual relationship. Delivery specifications are found in the respective Technical Information Sheets.

**Relevant phrases**

- H225 Highly flammable liquid and vapour.
- H226 Flammable liquid and vapour.
- 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.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H411 Toxic to aquatic life with long lasting effects.

EUH066 Repeated exposure may cause skin dryness or cracking.

**Classification according to Regulation (EC) No 1272/2008** Calculation method**Department issuing data specification sheet:** Product Safety department / EHS**Version number of previous version:** 7**Abbreviations and acronyms:**

- ADR: Accord relatif au transport international 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 Harmonised 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 (division of the American Chemical Society)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Flam. Liq. 2: Flammable liquids – Category 2
- Flam. Liq. 3: Flammable liquids – Category 3
- Acute Tox. 4: Acute toxicity – Category 4
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- Skin Sens. 1: Skin sensitisation – Category 1
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
- STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
- Asp. Tox. 1: Aspiration hazard – Category 1
- Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
- Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3