

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 28.10.2016

Version number 4

Revision: 04.07.2016

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

* 1.1 Product identifier

* Trade name **Epoxy Flex PH, Component B**

* Article number: 6250-59

* 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
Postfach 1255
D-49624 Lönningen / Germany
Tel.: +49(0)5432/83-0
Fax: +49(0)5432/3985

Remmers (UK) Limited
Unit B1 The Fleming Centre
West Sussex RH10 9NN
fon +44 (0) 1293 594 010
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* Informing department:

Product Safety department: Tel.: Steve Dunn Tel.: +44 (0) 1293 594 010
E-Mail: sales@remmers.co.uk

* 1.4 Emergency telephone number:

during working hours:

U.K.: Tel.: +44 (0) 1293 594 010

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after working hours: Tel.: +49 (0)171 21 34 091

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

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H312 Harmful in contact with skin.

Acute Tox. 4 H332 Harmful if inhaled.

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

* 2.2 Label elements

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

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

* Hazard pictograms



GHS05 GHS07

* Signal word Danger

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*** Hazard-determining components of labelling:**

Formaldehyde, polymer with N-(3-aminopropyl)-1,3-propanediamine
Benzyl alcohol

*** Hazard statements**

H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.
H314 Causes severe skin burns and eye damage.

*** Precautionary statements**

P102 Keep out of reach of children.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P264 Wash thoroughly after handling.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P302+P350 IF ON SKIN: Gently wash with plenty of soap and water.

*** 2.3 Other hazards**

*** Results of PBT and vPvB assessment**

* **PBT:** Not applicable.

* **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

*** 3.2 Chemical characterisation: Mixtures**

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

*** Dangerous components:**

CAS: 161278-35-9	Formaldehyde, polymer with N-(3-aminopropyl)-1,3-propanediamine Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	60-80%
CAS: 100-51-6 EINECS: 202-859-9 Index number: 603-057-00-5 Reg.nr.: 01-2119492630-38-XXXX	Benzyl alcohol Acute Tox. 4, H302; Acute Tox. 4, H332	20-40%

* **Additional information** 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**

If symptoms occur or in case of doubt, seek medical attention. In case of unconsciousness, do not administer anything orally.

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

* **After inhalation** Seek medical treatment in case of complaints.

*** After skin contact**

Do not use solvents or thinners!

If skin irritation continues, consult a doctor.

Wash immediately with water and soap and rinse thoroughly.

* **After eye contact** Rinse opened eye for several minutes under running water. Then consult doctor.

*** After swallowing**

Call a doctor immediately.

Drink plenty of water and provide fresh air. Call a doctor immediately.

*** 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.

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symptomatic treatment

SECTION 5: Firefighting measures

- * **5.1 Extinguishing media**
- * **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
- * **5.2 Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
- * **5.3 Advice for firefighters**
- * **Protective equipment:**
Wear full protective suit.
Wear self-contained breathing apparatus.
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.
Ensure adequate means of retaining the water used for extinguishing

SECTION 6: Accidental release measures

- * **6.1 Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Put on breathing apparatus.
Wear protective equipment. Keep unprotected persons away.
- * **6.2 Environmental precautions:**
Do not allow to enter the ground/soil.
Dilute with plenty of water.
- * **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralising agent.
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.
Ensure good ventilation/exhaust in workplaces.
Avoid the formation of aerosols.
- * **Information about protection against explosions and fires:**
No special requirements.
Keep breathing equipment ready.
- * **7.2 Conditions for safe storage, including any incompatibilities**
- * **Storage**
- * **Requirements to be met by storerooms and containers:** Prevent any penetration into the ground.
- * **Information on storage in a common storage facility:** Store away from food.
- * **Further information about storage conditions:**
Protect from frost.
Store container in a well ventilated position.
Keep container tightly closed.
- * **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- * **Additional information about design of technical systems:** No further data; see item 7.

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*** 8.1 Control parameters**

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

The product does not contain any relevant quantities of materials with limit values that have to be monitored at the workplace.

*** Additional information:** The lists that were valid during compilation were used as a basis.

*** 8.2 Exposure controls**

*** Personal protective equipment**

*** General protective and hygienic measures**

Do not eat, drink or smoke while working.
Use skin protection cream for preventive skin protection.
Keep away from food, beverages and animal feed.
Immediately remove soiled, saturated clothing.
Wash hands before pauses and after work.
Avoid contact with eyes and skin.

*** Respiratory equipment:**

Short term filter device:

Filter A (brown)

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.

*** Protection of hands:**

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**

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**

Break through time: max. 240 min (DIN EN 374).

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

*** Eye protection:** Tightly sealed safety glasses.

*** Body protection:** Protective work clothing.

SECTION 9: Physical and chemical properties

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

*** General Information**

*** Appearance:**

Form: Fluid

Colour: Yellow

*** Odour:** Amine-like

*** Odour threshold:** Not determined.

*** pH-value at 20 °C:** 12

*** Change in condition**

Melting point/Melting range: Not determined

Boiling point/Boiling range: > 200 °C

*** Flash point:** > 100 °C

*** Inflammability (solid, gaseous)** Not applicable.

*** Ignition temperature:** 435 °C

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* Decomposition temperature:	Not determined.
* Self-inflammability:	Product is not self-igniting.
* Danger of explosion:	Product is not explosive.
* Explosive Limits:	
Lower:	Not determined.
Upper:	Not determined.
* Vapour pressure at 20 °C:	0.1 hPa
* Density at 20 °C	1.05 g/cm ³
* Relative density	Not determined.
* Vapour density	Not determined.
* Evaporation rate	Not determined.
* Solubility in / Miscibility with	
Water:	miscible
* Distribution coefficient (n-octanol/water):	Not determined.
* Viscosity:	
dynamic at 20 °C:	60 mPas
kinematic:	Not determined.
* Solvent separation test	< 3 %
* Other information	No further relevant information available.

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.
- * **10.3 Possibility of hazardous reactions**
Do not mix with strong acids, violent decomposition reactions possible.
- * **10.4 Conditions to avoid** No further relevant information available.
- * **10.5 Incompatible materials:** strong acids
- * **10.6 Hazardous decomposition products:**
None if used properly.
None if stored properly.

SECTION 11: Toxicological information

- * **11.1 Information on toxicological effects**
- * **Acute toxicity:**
Harmful if swallowed, in contact with skin or if inhaled.
- * **LD/LC50 values that are relevant for classification:**

ATE (Acute Toxicity Estimates)

Oral LD50 608 mg/kg
 Dermal LD50 1272 mg/kg
 Inhalative LC50/4 h 11 mg/l

CAS: 100-51-6 Benzyl alcohol

Oral LD50 1230 mg/kg (rat)
 Dermal LD50 2000 mg/kg (rabbit)

- * **Primary irritant effect:**
- * **Skin corrosion/irritation**
Causes severe skin burns and eye damage.

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- * **Serious eye damage/irritation**
Causes serious eye damage.
- * **Sensitisation:** Based on available data, the classification criteria are not met.
- * **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- * **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** Based on available data, the classification criteria are not met.
- * **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- * **Aspiration hazard** Based on available data, the classification criteria are not met.

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.
- * **Additional ecological information:**
- * **General notes:**
Do not allow product to reach ground water, bodies of water or sewage system.
Do not allow undiluted or non-neutralised product to reach the sewage system or receiving waters.
Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.
Do not allow undiluted or larger quantities of the product to reach ground water, bodies fo water or sewage system.
- * **12.5 Results of PBT and vPvB assessment**
- * **PBT:** Not applicable.
- * **vPvB:** Not applicable.
- * **12.6 Other adverse effects** No further relevant information available.

* SECTION 13: Disposal considerations

- * **13.1 Waste treatment methods**
- * **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.
- * **Recommended cleaning agent:** Water, if necessary with cleaning agent.

SECTION 14: Transport information

- * **14.1 UN-Number**
- * **ADR, IMDG, IATA** UN2735
- * **14.2 UN proper shipping name**
- * **ADR** 2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S.
(Formaldehyde, polymer with N-(3-aminopropyl)-1,3-propanediamine)
- * **IMDG, IATA** POLYAMINES, LIQUID, CORROSIVE, N.O.S.
(Formaldehyde, polymer with N-(3-aminopropyl)-1,3-propanediamine)

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* 14.3 Transport hazard class(es)

* ADR



* Class 8 (C7) Corrosive substances.
* Label 8

* IMDG, IATA



* Class 8 Corrosive substances.
* Label 8
* 14.4 Packing group III
* ADR, IMDG, IATA III
* 14.5 Environmental hazards:
* Marine pollutant: -
No
* 14.6 Special precautions for user Warning: Corrosive substances.
* Kemler Number: 80
* EMS Number: F-A,S-B
* Segregation groups Alkalis
* Stowage Category A
* Segregation Code SG35 Stow "separated from" acids.
* 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.

* Transport/Additional information:

* ADR

* Limited quantities (LQ) 5L
* Excepted quantities (EQ) Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml
* Transport category 3
* Tunnel restriction code E

* IMDG

* Limited quantities (LQ) 1L
* Excepted quantities (EQ) Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml
* UN "Model Regulation": UN 2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S. (FORMALDEHYDE, POLYMER WITH N-(3-AMINOPROPYL)-1,3-PROPANEDIAMINE), 8, III

SECTION 15: Regulatory information

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

* Directive 2012/18/EU

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

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

* 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

Delivery specifications are found in the respective Technical Information Sheets.

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.

* **Relevant phrases**

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

* **Department issuing data specification sheet:** Product Safety department / EHS

* **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 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

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Eye Dam. 1: Serious eye damage/eye irritation – Category 1