

## 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 A****\* 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  
fax +44 (0) 1293 594 037

**\* 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

sales@remmers.co.uk

Head Office Germany: Tel.: +49 (0)5432 83 187

info@remmers.de

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**

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.

Muta. 2 H341 Suspected of causing genetic defects.

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

**\* Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

not applicable

Xn; Harmful

R68: Possible risk of irreversible effects.

Xi; Irritant

R36/38: Irritating to eyes and skin.

Xi; Sensitising

R43: May cause sensitisation by skin contact.

N; Dangerous for the environment

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R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**\* Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

**\* Classification system:**

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

**\* 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**



GHS07   GHS08   GHS09

**\* Signal word** Warning

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

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)

Glycidylester of neodecan acid

hexandiol diglycidylether

oxirane, mono[(C12-14-alkyloxy)methyl] derivs

**\* Hazard statements**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H341 Suspected of causing genetic defects.

H411 Toxic to aquatic life with long lasting effects.

**\* Precautionary statements**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

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

P273 Avoid release to the environment.

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

P312 Call a POISON CENTER/doctor if you feel unwell.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P405 Store locked up.

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

**\* Additional information:**

EUH205 Contains epoxy constituents. May produce an allergic reaction.

**\* 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:**

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CAS: 25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin	20-40%
NLP: 500-033-5	(number average molecular weight = 700)	
Index number: 603-074-00-8	Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2,	
Reg.nr.: 01-2119456619-26-XXXX	H319; Skin Sens. 1, H317	
CAS: 26761-45-5	Glycidylester of neodecan acid	5-10%
EINECS: 247-979-2	Muta. 2, H341; Aquatic Chronic 2, H411; Skin Sens. 1,	
Reg.nr.: 01-2119431597-33-XXXX	H317	
CAS: 16096-31-4	hexandiol diglycidylether	≤0.5%
EINECS: 240-260-4	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317;	
Reg.nr.: 01-2119463471-41-XXXX	Aquatic Chronic 3, H412	
CAS: 68609-97-2	oxirane, mono[(C12-14-alkyloxy)methyl] derivs	≤0.5%
EINECS: 271-846-8	Skin Irrit. 2, H315; Skin Sens. 1, H317	
Index number: 603-103-00-4		
Reg.nr.: 01-2119485289-22-XXXX		

\* **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.

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

##### \* After skin contact

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. 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).

A person vomiting while lying on their back should be turned onto their side.

##### \* 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

Water spray jet

Carbon dioxide

Foam

Fire-extinguishing powder

Use fire fighting measures that suit the environment.

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

May be released in case of fire

carbon monoxides

further harmful conflagration gases and fumes

##### \* 5.3 Advice for firefighters

##### \* Protective equipment:

Wear full protective suit.

Wear self-contained breathing apparatus.

##### \* Additional information

Cool endangered containers with water spray jet.

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

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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

#### \* 6.2 Environmental precautions:

Do not allow to enter the ground/soil.

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

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

Ensure good ventilation/exhaust in workplaces.

Avoid the formation of aerosols.

\* **Information about protection against explosions and fires:** No special requirements.

#### \* 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:** none

\* **Further information about storage conditions:**

Protect from frost.

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.

#### \* 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:**

In case vapours/aerosols develop:

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:**

Impervious gloves

Long cuffed gloves

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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:** Viscous  
**Colour:** Different, according to dye

\* **Odour:** Characteristic\* **Odour threshold:** Not determined.\* **pH-value:** Not determined.\* **Change in condition****Melting point/Melting range:** Not determined**Boiling point/Boiling range:** Not determined\* **Flash point:** > 100 °C\* **Inflammability (solid, gaseous)** Not applicable.\* **Ignition temperature:** not applicable\* **Decomposition temperature:** > 200 °C\* **Self-inflammability:** Product is not self-igniting.\* **Danger of explosion:** Product is not explosive.\* **Explosive Limits:****Lower:** Not determined.**Upper:** Not determined.\* **Vapour pressure:** Not determined.\* **Density at 20 °C** 1.59 g/cm<sup>3</sup>\* **Relative density** Not determined.\* **Vapour density** Not determined.\* **Evaporation rate** Not determined.\* **Solubility in / Miscibility with****Water:** Not miscible or difficult to mix\* **Distribution coefficient (n-octanol/water):** > 3 log POW\* **Viscosity:****dynamic at 20 °C:** 2700 mPas**kinematic:** Not determined.\* **Solvent separation test** < 3 %

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\* **9.2 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** No dangerous reactions known

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

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

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

\* **LD/LC50 values that are relevant for classification:**

##### **ATE (Acute Toxicity Estimates)**

Inhalative LC50/4 h 52.2 mg/l (rat)

**CAS: 25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)**

Oral LD50 > 10000 mg/kg (rat)

Dermal LD50 > 2000 mg/kg (rat)

**CAS: 26761-45-5 Glycidylester of neodecan acid**

Oral LD50 > 2000 mg/kg (rat)

Dermal LD50 > 2000 mg/kg (rabbit)

Inhalative LC50/4 h > 5 mg/l (rat)

\* **Primary irritant effect:**

\* **Skin corrosion/irritation**

Causes skin irritation.

\* **Serious eye damage/irritation**

Causes serious eye irritation.

\* **Sensitisation:**

May cause an allergic skin reaction.

\* **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

\* **Germ cell mutagenicity**

Suspected of causing genetic defects.

\* **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.

\* **Ecotoxicological effects:**

\* **Remark:** Toxic for fish

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**\* 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.  
Also toxic for fish and plankton in bodies of water.  
Toxic for aquatic organisms

**\* 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.  
Do not dispose of together with household garbage. Do not allow product to reach sewage system.

**\* 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.

#### SECTION 14: Transport information

**\* 14.1 UN-Number**

**\* ADR, IMDG, IATA**

UN3082

**\* 14.2 UN proper shipping name**

**\* ADR**

3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700))

**\* IMDG**

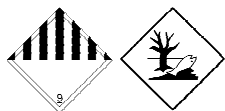
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)), MARINE POLLUTANT

**\* IATA**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700))

**\* 14.3 Transport hazard class(es)**

**\* ADR**



**\* Class**

9 (M6) Miscellaneous hazardous substances and articles.

**\* Label**

9

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**\* IMDG, IATA**



**\* Class**

9 Miscellaneous hazardous substances and articles.

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* Label	9
* 14.4 Packing group	
* ADR, IMDG, IATA	III
* 14.5 Environmental hazards:	
* Marine pollutant:	Yes Symbol (fish and tree)
* Special marking (ADR):	Symbol (fish and tree)
* Special marking (IATA):	Symbol (fish and tree)
* 14.6 Special precautions for user	Warning: Miscellaneous hazardous substances and articles.
* Kemler Number:	90
* EMS Number:	F-A,S-F
* Stowage Category	A
* 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)	5L
* Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
* UN "Model Regulation":	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (REACTION PRODUCT: BISPHENOL-A-(EPICHLORHYDRIN) EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT = 700)), 9, 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.
- \* **Seveso category** E2 Hazardous to the Aquatic Environment
- \* **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t
- \* **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
- \* **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."
- \* **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

- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.

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H341 Suspected of causing genetic defects.  
H411 Toxic to aquatic life with long lasting effects.  
H412 Harmful to aquatic life with long lasting effects.

\* **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  
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  
Muta. 2: Germ cell mutagenicity – Category 2  
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