

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 09.11.2016

Version number 6

Revision: 08.11.2016

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

- **1.1 Product identifier**
- **Trade name: POLYCRAFT EPOLAM 2017 HARDENER**
- **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** Epoxy curing agent
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
MB FIBREGLASS
17 & 20 ABBEY BUSINESS PARK, MILL ROAD, NEWTOWNABBEY, BT36 7EE
TEL: 02890 861992
- **1.4 Emergency telephone number: 02890 861992 (OFFICE HOURS ONLY)**

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
Acute Tox. 3 H331 Toxic if inhaled.
Skin Corr. 1B H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage.
Skin Sens. 1 H317 May cause an allergic skin reaction.
Repr. 2 H361f Suspected of damaging fertility.
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 CLP regulation.
- **Hazard pictograms**



GHS05 GHS06 GHS08

- **Signal word** Danger
- **Hazard-determining components of labelling:**
Polyoxyalkyleneamine
2,2'-iminodiethylamine
3-aminomethyl-3,5,5-trimethylcyclohexylamine
4-tert-butylphenol
- **Hazard statements**
H331 Toxic if inhaled.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H361f Suspected of damaging fertility.
H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements**
P260 Do not breathe dusts or mists.
P280 Wear protective gloves.

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- P303+P361+P353 **IF ON SKIN (or hair):** Remove/Take off immediately all contaminated clothing. Rinse skin with water/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.
- P310 **Immediately call a POISON CENTER/doctor.**
- P501 **Dispose of contents/container in accordance with local/regional/national/international regulations.**

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

| | | |
|--|--|--------|
| CAS: 9046-10-0 Reg.nr.: 01-2119557899-12 | Polyoxyalkyleneamine Skin Corr. 1C, H314; Eye Dam. 1, H318; Aquatic Chronic 3, H412 | 25-50% |
| CAS: 2855-13-2 EINECS: 220-666-8 Reg.nr.: 01-2119514687-32 | 3-aminomethyl-3,5,5-trimethylcyclohexylamine Skin Corr. 1B, H314; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; Aquatic Chronic 3, H412 | 25-50% |
| CAS: 98-54-4 EINECS: 202-679-0 | 4-tert-butylphenol Repr. 2, H361f; Eye Dam. 1, H318; Skin Irrit. 2, H315 | 10-25% |
| CAS: 111-40-0 EINECS: 203-865-4 Reg.nr.: 01-2119473793-27 | 2,2'-iminodiethylamine Acute Tox. 2, H330; Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; STOT SE 3, H335 | 10-25% |

- **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:** Immediately remove any clothing soiled by the product.
- **After inhalation:**
Supply fresh air; consult doctor in case of complaints.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Do not induce vomiting; call for medical help 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.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
In case of fire, the following can be released:

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Nitrogen oxides (NO_x)

Carbon monoxide (CO)

· **5.3 Advice for firefighters**

· **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

· **Additional information**

Collect contaminated fire fighting water separately. It must not enter the sewage system.

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**

Wear protective equipment. Keep unprotected persons away.

· **6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.**

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

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

Dispose 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 disposal information.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

· **Information about fire - and explosion protection: Protect from heat.**

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** Prevent any seepage into the ground.· **Information about storage in one common storage facility:** Store away from foodstuffs.· **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.

· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

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

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

111-40-0 2,2'-iminodiethylamine

| | |
|-----|--|
| WEL | Long-term value: 4.3 mg/m ³ , 1 ppm |
|-----|--|

| | |
|----|--|
| Sk | |
|----|--|

· **Additional information:** The lists valid during the making were used as basis.

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· **8.2 Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **Protection of hands:**



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**

Neoprene gloves

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

· **Eye protection:**



Safety glasses

Tightly sealed goggles

· **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: Amber coloured

· **Odour:** Amine-like

· **pH-value at 20 °C:** >10

· **Change in condition**

Melting point/Melting range: NA °C

Boiling point/Boiling range: >200 °C (DIN 53171)

· **Flash point:** > 100 °C (ISO 2719)

· **Ignition temperature:** >300 °C (DIN 51 794)

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- **Decomposition temperature:** >260 °C (DIN 53171)
- **Self-igniting:** Product is not selfigniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Density at 20 °C:** 0.93 g/cm³ (ISO 1675:1985)
- **Solubility in / Miscibility with water:** Not miscible or difficult to mix.
- **organic solvents:** Soluble in many organic solvents.
- **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 used according to specifications.
- **10.3 Possibility of hazardous reactions** Strong exothermic reaction with acids.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**
Corrosive gases/vapours
Ammonia

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**
Toxic if inhaled.

· **LD/LC50 values relevant for classification:**

9046-10-0 Polyoxyalkyleneamine

| | | |
|------|------|------------------|
| Oral | LD50 | 2885 mg/kg (rat) |
|------|------|------------------|

| | | |
|--------|------|---------------------|
| Dermal | LD50 | 2980 mg/kg (rabbit) |
|--------|------|---------------------|

2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine

| | | |
|------|------|------------------|
| Oral | LD50 | 1030 mg/kg (rat) |
|------|------|------------------|

| | | |
|--------|------|----------------------|
| Dermal | LD50 | >2000 mg/kg (rabbit) |
|--------|------|----------------------|

98-54-4 4-tert-butylphenol

| | | |
|------|------|------------------|
| Oral | LD50 | 2951 mg/kg (rat) |
|------|------|------------------|

| | | |
|--------|------|---------------------|
| Dermal | LD50 | 2288 mg/kg (rabbit) |
|--------|------|---------------------|

111-40-0 2,2'-iminodiethylamine

| | | |
|------|------|------------------|
| Oral | LD50 | 1080 mg/kg (rat) |
|------|------|------------------|

| | | |
|--------|------|---------------------|
| Dermal | LD50 | 1090 mg/kg (rabbit) |
|--------|------|---------------------|

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes severe skin burns and eye damage.
- **Serious eye damage/irritation**
Causes serious eye damage.
- **Respiratory or skin sensitisation**
May cause an allergic skin reaction.

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- **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**
Suspected of damaging fertility.
- **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:**

9046-10-0 Polyoxyalkyleneamine

| | |
|---------------------|-------------------|
| LC50 (96h) | >15 mg / l (fish) |
| EC50 (48h) (static) | 80 mg/l (daphnia) |

2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine

| | |
|------------|---------------------|
| LC50 (96h) | 110 mg / l (fish) |
| EC50 (24h) | 44 mg / l (daphnia) |
| EC50 (72h) | 37 mg/l (alga) |

- **12.2 Persistence and degradability** No further relevant information available.
- **Other information:** The product is not easily biodegradable.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:** Harmful to 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**

Dispose of the product by burning in a suitable incinerator or bury in an approved landfill following all applicable local and/or national regulations.

· **European waste catalogue**

| | |
|----------|---|
| 20 01 27 | paint, inks, adhesives and resins containing dangerous substances |
|----------|---|

· **Uncleaned packaging:**

· **Recommendation:**

Empty containers may not be disposed of unless any remaining material adhering to the internal walls has been removed.

Disposal must be made according to official regulations.

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· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

· **14.1 UN-Number**
· **ADR, IMDG, IATA** UN1760
· **14.2 UN proper shipping name**
· **ADR** 1760 CORROSIVE LIQUID, N.O.S. (Polyoxyalkyleneamine, DIETHYLENETRIAMINE)
· **IMDG, IATA** CORROSIVE LIQUID, N.O.S. (Polyoxyalkyleneamine, DIETHYLENETRIAMINE)

· **14.3 Transport hazard class(es)**

· **ADR, IMDG, IATA**



· **Class** 8 Corrosive substances.

· **Label** 8

· **14.4 Packing group**

· **ADR, IMDG, IATA** II

· **14.5 Environmental hazards:**

· **Marine pollutant:** No

· **14.6 Special precautions for user** Warning: Corrosive substances.

· **Danger code (Kemler):** 80

· **EMS Number:** F-A,S-B

· **Segregation groups** Alkalis

· **Stowage Category** B

· **Stowage Code** SW2 Clear of living quarters.

· **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.

· **Transport/Additional information:**

· **ADR**

· **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

· **Transport category** 2

· **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 1760 CORROSIVE LIQUID, N.O.S. (POLYOXYALKYLENEAMINE, DIETHYLENETRIAMINE), 8, II

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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 H2 ACUTE TOXIC**
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **National regulations:**
- **Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall 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.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H330 Fatal if inhaled.
- H335 May cause respiratory irritation.
- H361f Suspected of damaging fertility.
- H412 Harmful to aquatic life with long lasting effects.
- **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
- Acute Tox. 2: Acute toxicity – Category 2
- Acute Tox. 3: Acute toxicity – Category 3
- Skin Corr. 1B: Skin corrosion/irritation – Category 1B
- Skin Corr. 1C: Skin corrosion/irritation – Category 1C
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Eye Dam. 1: Serious eye damage/eye irritation – Category 1
- Skin Sens. 1: Skin sensitisation – Category 1
- Repr. 2: Reproductive toxicity – Category 2
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
- Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3
- *** Data compared to the previous version altered.**