



BE SURE. BUILD SURE.

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

Printing date 21.04.2022

Version number 13

Revision: 21.04.2022

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

#### 1.1 Product identifier

Trade name **Konudur Robopox 20 - Komponente B**

Article number: 766

#### 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  
Hardening agent/ Curing agent

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

Manufacturer/Supplier: MC-Bauchemie Müller GmbH & Co. KG  
Am Kruppwald 1-8  
D-46238 Bottrop  
Tel.: +49(0)2041-101-0  
Fax.: +49(0)2041-101-400  
E-Mail: info@mc-bauchemie.de

MC-Bauchemie AG  
Hagackerstr. 10  
CH-8953 Dietikon  
Tel.: +44-7400510  
Fax : +44-7400533

Informing department: msds@mc-bauchemie.de

#### 1.4 Emergency telephone number:

Tel.: +49 / (0)700 24112112 (MCR)  
Tel.: +48612864565

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

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

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.

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



GHS05 GHS07

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- **Signal word** Danger
- **Hazard-determining components of labelling:** polymer amine terminated  
1,3-Cyclohexanedimethanamine  
Tetraethylenpentamin  
m-phenylenebis(methylamine)  
2,4,6-Tris-(1-Phenyl-Ethyl) carboic acid
- **Hazard statements** H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements** P260 Do not breathe dusts or mists.  
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.  
P310 Immediately call a POISON CENTER/doctor.  
P321 Specific treatment (see on this label).  
P362+P364 Take off contaminated clothing and wash it before reuse.
- **Additional information:** Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.
- **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 consisting of the following components.

· **Dangerous components:**

	polymer amine terminated Eye Dam. 1, H318; Skin Irrit. 2, H315; Skin Sens. 1B, H317	≥10-<25%
CAS: 100-51-6 EINECS: 202-859-9 Reg.nr.: 01-2119492630-38	Benzyl alcohol Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	<5%
CAS: 61788-44-1 EINECS: 262-975-0	2,4,6-Tris-(1-Phenyl-Ethyl) carboic acid Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Skin Sens. 1, H317	≥2.5-<5%
CAS: 2579-20-6 EINECS: 219-941-5 Reg.nr.: 01-2119543741-41-XXXX	1,3-Cyclohexanedimethanamine Skin Corr. 1B, H314; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317	≥1-<5%

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CAS: 9046-10-0 Reg.nr.: 01-2119557899-12	Polyoxypropylenediamine Skin Corr. 1B, H314; Aquatic Chronic 3, H412	≥2.5-<3%
CAS: 90640-66-7 EINECS: 292-587-7 Reg.nr.: 01-2119487290-37	Tetraethylenpentamin Skin Corr. 1B, H314; Aquatic Chronic 2, H411; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317	≥2.5-<3%
CAS: 1477-55-0 EINECS: 216-032-5 Reg.nr.: 01-2119480150-50	m-phenylenebis(methylamine) Skin Corr. 1B, H314; Acute Tox. 4, H302; Skin Sens. 1, H317; Aquatic Chronic 3, H412	≥2.5-<3%
CAS: 13463-67-7 EINECS: 236-675-5	titanium dioxide Carc. 2, H351	≥0.1-<1.5%

· **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** Instantly remove any clothing soiled by the product.
- **After inhalation** Supply fresh air.
- **After skin contact** Instantly wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for several minutes under running water. Seek medical treatment.
- **After swallowing** Drink copious amounts of water and provide fresh air. Instantly call for doctor.

· **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** Use fire fighting measures that suit the environment.

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

No further relevant information available.

· **5.3 Advice for firefighters**

· **Protective equipment:** No special measures required.

**SECTION 6: Accidental release measures**

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

Wear protective equipment. Keep unprotected persons away.

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- **6.2 Environmental precautions:** No special measures required.
- **6.3 Methods and material for containment and cleaning up:** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
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**  
Store in cool, dry place in tightly closed containers.  
Open and handle container with care.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

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

- **8.1 Control parameters**
- **Additional information about design of technical systems:** No further data; see item 7.
- **Components with critical values that require monitoring at the workplace:** The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

##### · DNELs

##### 100-51-6 Benzyl alcohol

Oral	DNEL	4 mg/kg bw/Tag (ArL) 20 mg/kg bw/Tag (Ark)
Dermal	DNEL	8 mg/kg bw/day (ArL) 40 mg/kg bw/day (Ark)
Inhalative	DNEL	22 mg/m <sup>3</sup> (ArL)

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		110 mg/m <sup>3</sup> (Ark)
<b>2579-20-6 1,3-Cyclohexanedimethanamine</b>		
Inhalative	DNEL	0.00947 mg/m <sup>3</sup> (Workers)
<b>9046-10-0 Polyoxypropylenediamine</b>		
Oral	DNEL	0.04 mg/kg bw/Tag (ArL)
Dermal	DNEL	2.5 mg/kg bw/day (ArL)
<b>1477-55-0 m-phenylenebis(methylamine)</b>		
Dermal	DNEL	0.33 mg/kg bw/day (Workers)
Inhalative	DNEL	1.2 mg/m <sup>3</sup> (Workers)

**· PNECs**

**100-51-6 Benzyl alcohol**

PNEC	0.527 mg/l (Marine water sediment)
	0.1 mg/l (Mew)
	1 mg/l (Fresh water sediment)
PNEC	0.456 mg/kg dwt (Bod)
	5.27 mg/kg dwt (Fresh water sediment)

**2579-20-6 1,3-Cyclohexanedimethanamine**

PNEC	0.003 mg/l (Mew)
PNEC	0.033 mg/l (Fresh water)

**9046-10-0 Polyoxypropylenediamine**

PNEC	7.5 mg/l (Sewage Treatment Plant)
	0.015 mg/l (Fresh water)
PNEC	0.0176 mg/kg dwt (Bod)
	0.125 mg/kg dwt (Sediment)
	0.132 mg/kg dwt (Fresh water sediment)

**1477-55-0 m-phenylenebis(methylamine)**

PNEC	10 mg/l (Kla)
	0.009 mg/l (Mew)
	0.094 mg/l (Suw)
PNEC	0.045 mg/kg dwt (Bod)
	0.43 mg/kg dwt (Marine water sediment)
	0.43 mg/kg dwt (Fresh water sediment)

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

**· 8.2 Exposure controls**

**· Personal protective equipment**

**· General protective and hygienic measures**

Keep away from foodstuffs, beverages and food.  
Instantly remove any soiled and impregnated garments.  
Wash hands during breaks and at the end of the work.  
Avoid contact with the eyes and skin.

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- **Protection of hands:** *Protective gloves.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation*
- **Material of gloves** *After use of gloves apply skin-cleaning agents and skin cosmetics.  
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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.*
- **Eye protection:** *Safety glasses  
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:

· <b>Form:</b>	<i>Pasty</i>
· <b>Colour:</b>	<i>Raw white</i>
· <b>Smell:</b>	<i>Amine-like</i>

· **pH-value:** *12*

##### · Change in condition

· <b>Melting point/freezing point:</b>	<i>Not determined</i>
· <b>Initial boiling point and boiling range:</b>	<i>Not applicable</i>
	<i>Not determined</i>

· **Flash point:** *≥61 °C*

· **Self-inflammability:** *Product is not selfigniting.*

· **Explosive properties:** *Product is not explosive.*

· **Density at 20 °C** *1,770 g/cm<sup>3</sup>*

· **Solubility in / Miscibility with Water:** *Not miscible or difficult to mix*

· **Viscosity:**  
· **dynamic at 20 °C:** *210000 mPas*

· **9.2 Other information** *No further relevant information available.*

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**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** 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:** No dangerous decomposition products known

**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:**

**100-51-6 Benzyl alcohol**

Oral	LD50	1230 mg/kg (rat)
	NOAEL 2nd year study	200 mg/kg (mouse) 200 mg/kg (rat)
Dermal	LD50	2000 mg/kg (rabbit)
Inhalative	LC50/4 h	>4178 mg/l (rat)

**2579-20-6 1,3-Cyclohexanedimethanamine**

Oral	LD50	700 mg/kg (rat)
Dermal	LD50	1700 mg/kg (rat)

**9046-10-0 Polyoxypropylenediamine**

Oral	LD50	2855 mg/kg (Rat)
Dermal	LD50	2980 mg/kg (Kan)

**1477-55-0 m-phenylenebis(methylamine)**

Oral	LD50	1180 mg/kg (mouse)
		930 mg/kg (rat)
Dermal	LD50	>3100 mg/kg (rabbit)

**13463-67-7 titanium dioxide**

Oral	LD50	>10000 mg/kg (rat)
Dermal	LD50	>10000 mg/kg (rabbit)
Inhalative	LC50/4 h	>6.8 mg/l (rat)

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

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- **Respiratory or skin sensitisation** May cause an allergic skin reaction.
- **Additional toxicological information:**
- **CMR effects (carcinogenity, 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:**

**100-51-6 Benzyl alcohol**

IC50/72h	700 mg/l (algae)
LC50/96h	460 mg/l ( <i>Pimephales promelas</i> ) 10 mg/l ( <i>Lepomis macrochirus</i> )

**2579-20-6 1,3-Cyclohexanedimethanamine**

EC50/24h	90 mg/l ( <i>Pseudokirchneriella subcapitata</i> )
EC50	90 mg/l ( <i>Pseudomonas putida</i> )
LC50/48h	130 mg/l ( <i>Leucidus idus</i> )

**1477-55-0 m-phenylenebis(methylamine)**

IC50/72h	12 mg/l (algae)
EC50/72h	12 mg/l ( <i>Scenedesmus subspicatus</i> )
LC50/96h	>100 mg/l ( <i>Oncorhynchus mykiss</i> ) 87.6 mg/l ( <i>Ory</i> )
EC50/48h	15.2 mg/l ( <i>Daphnia magna</i> )

· **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, water bodies or sewage system.

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

· **12.5 Results of PBT and vPvB assessment**

· **PBT:**

Not applicable.

· **vPvB:**

Not applicable.

· **12.6 Other adverse effects**

No further relevant information available.

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#### SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**

· **Recommendation**                      *Must not be disposed of together with household garbage. Do not allow product to reach sewage system.*

· **Uncleaned packagings:**

· **Recommendation:**                      *Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.*

#### SECTION 14: Transport information

· **14.1 UN-Number**  
· **ADR, IMDG, IATA**

UN2735

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

AMINES, LIQUID, CORROSIVE, N.O.S. (1,3-Cyclohexanedimethanamine, Polyoxypropylenediamine)

· **14.3 Transport hazard class(es)**

· **ADR**  
· **Class**  
· **Label**

8 (C7) Corrosive substances.  
8

· **IMDG, IATA**  
· **Class**  
· **Label**

8 Corrosive substances.  
8

· **14.4 Packing group**  
· **ADR, IMDG, IATA**

II

· **14.5 Environmental hazards:**

· **Marine pollutant:**

No

· **14.6 Special precautions for user**

· **Kemler Number:**  
· **EMS Number:**  
· **Segregation groups**  
· **Stowage Category**  
· **Segregation Code**

Warning: Corrosive substances.  
80  
F-A, S-B  
Alkalis  
A  
SG35 Stow "separated from" SGG1-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)**

1L

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· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>Transport category</b>	2
· <b>Tunnel restriction code</b>	E
· <b>Remarks:</b>	"Begrenzte Mengen"
<hr/>	
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>Remarks:</b>	"Begrenzte Mengen"
· <b>UN "Model Regulation":</b>	UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (1, 3-CYCLOHEXANEDIMETHANAMINE, POLYOXYPROPYLENEDIAMINE), 8, II

#### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/ legislation specific for the substance or mixture** No further relevant information available.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

#### SECTION 16: Other information

These data are based on our present knowledge. However, they 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.  
H332 Harmful if inhaled.  
H351 Suspected of causing cancer.  
H411 Toxic to aquatic life with long lasting effects.  
H412 Harmful to aquatic life with long lasting effects.
- **Department issuing data specification sheet:** Environment protection department.
- **Abbreviations and acronyms:** RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

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ICAO: International Civil Aviation Organisation

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)

DNEL: Derived No-Effect Level (GB REACH)

PNEC: Predicted No-Effect Concentration (GB REACH)

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

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

Skin Sens. 1B: Skin sensitisation – Category 1B

Carc. 2: Carcinogenicity – 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

· \* **Data compared to the previous version altered.**

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