



BE SURE. BUILD SURE.

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

Printing date 23.10.2021

Version number 9

Revision: 16.10.2021

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

1.1 Product identifier

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

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

No further relevant information available.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Epoxy sealing

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 Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Aquatic Chronic 2 H411 Toxic 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



GHS07 GHS09

Signal word

Warning

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- **Hazard-determining components of labelling:** Propyl -2,2-diphenyl-4,4'dipropyloxirane polymers and homologues molecular weight < 700
oxirane, mono[(C12-14-alkyloxy)methyl] derivs
2,2'-[methylenebis(p-phenyleneoxymethylene)]bisoxirane polymers and homologues, molecular weight < 700
- **Hazard statements** H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.
- **Precautionary statements** P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P273 Avoid release to the environment.
P280 Wear protective gloves / eye protection / face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
- **Additional information:** 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 consisting of the following components.

- **Dangerous components:**

CAS: 1675-54-3 EINECS: 216-823-5	bis[4-(2,3-epoxypropoxy)phenyl]propane Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	≥5-<25%
CAS: 68609-97-2 EINECS: 271-846-8	oxirane, mono[(C12-14-alkyloxy)methyl] derivs Skin Irrit. 2, H315; Skin Sens. 1, H317	≥1-<5%
CAS: 9003-36-5 NLP: 500-006-8	2,2'-[methylenebis(p-phenyleneoxymethylene)]bisoxirane polymers and homologues, molecular weight < 700 Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	≥2.5-<3%
CAS: 100-51-6 EINECS: 202-859-9 Reg.nr.: 01-2119492630-38	Benzyl alcohol Acute Tox. 4, H302; Acute Tox. 4, H332	<1.5%
CAS: 2530-83-8 EINECS: 219-784-2	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane Eye Dam. 1, H318	≥1-<1.5%

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· **Additional information**

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

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SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **After inhalation**

Supply fresh air.

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**

Instantly wash with water and soap and rinse thoroughly.

Instantly rinse with water.

· **After eye contact**

Seek medical treatment.

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

· **After swallowing**

Rinse out mouth and then drink plenty of water.

Seek medical treatment.

· **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**

Not required.

· **6.2 Environmental precautions:**

Inform respective authorities in case product reaches 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).

Ensure adequate ventilation.

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· **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.
Store in cool, dry conditions in well sealed containers.

· **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**

68609-97-2 oxirane, mono[(C12-14-alkyloxy)methyl] derivs

Oral	DNEL	1 mg/kg bw/Tag (ArL)
Dermal	DNEL	1.7 mg/kg bw/day (ArL)
Inhalative	DNEL	0.98 mg/m ³ (ArL)

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 ³ (ArL)

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	110 mg/m ³ (Ark)
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· PNECs

68609-97-2 oxirane, mono[(C12-14-alkyloxy)methyl] derivs

PNEC	0.00072 mg/l (Mew)
	0.0072 mg/l (Suw)
PNEC	80.12 mg/kg dwt (Bod)
	6.677 mg/kg dwt (Sediment)
	66.77 mg/kg dwt (Fresh water sediment)

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)

· 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.

· 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.

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SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

· Form:	Pasty
· Colour:	Red
· Smell:	Characteristic

· pH-value: Not applicable.

· Change in condition

· Melting point/freezing point:	Not determined
· Initial boiling point and boiling range:	201 °C

· Flash point: ≥ 61 °C

· Ignition temperature: 184 °C

· Self-inflammability: Product is not selfigniting.

· Explosive properties: Product is not explosive.

· Steam pressure at 20 °C: 0.1 hPa

· Density at 20 °C: 1.78 g/cm³

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

· Viscosity:
dynamic at 20 °C: 180000 mPas

· 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: 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.

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LD/LC50 values that are relevant for classification:		
1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane		
Dermal	LD50	23000 mg/kg (rabbit)
68609-97-2 oxirane, mono[(C12-14-alkyloxy)methyl] derivs		
Oral	LD50	17100 mg/kg (rat)
9003-36-5 2,2'-[methylenebis(p-phenyleneoxymethylene)]bisoxirane polymers and homologues, molecular weight < 700		
Oral	LD50	>2000 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rabbit)
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)
2530-83-8 [3-(2,3-epoxypropoxy)propyl]trimethoxysilane		
Oral	LD50	8030 mg/kg (rat)
Dermal	LD50	4248 mg/kg (rabbit)

Primary irritant effect:

- **Skin corrosion/irritation** Causes skin irritation.
- **Serious eye damage/irritation** Causes serious eye irritation.

Respiratory or skin

- **sensitisation** May cause an allergic skin reaction.

Additional toxicological information:**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:**

1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane	
IC50	>42.6 mg/l (Bak)
LC50/96h	2 mg/l (Oncorhynchus mykiss)
EC50/48h	1.8 mg/l (Daphnia magna)
ErC50/72h	11 mg/l (Selenastrum capricornutum)

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68609-97-2 oxirane, mono[(C12-14-alkyloxy)methyl] derivsEbC50/72h 843 mg/l (*Pseudokirchneriella subcapitata*)LC50/96h >5000 mg/l (*Oncorhynchus mykiss*)1800 mg/l (*Lepomis macrochirus*)

EC50 >100 mg/l (BEL)

NOEC 500 mg/l (*Pseudokirchneriella subcapitata*)**9003-36-5 2,2'-[methylenebis(p-phenyleneoxymethylene)]bisoxirane polymers and homologues, molecular weight < 700**LC50/96h >100 mg/l (*Daphnia magna*)EC50/96h >100 mg/l (*Leucidus idus*)**100-51-6 Benzyl alcohol**

IC50/72h 700 mg/l (algae)

LC50/96h 460 mg/l (*Pimephales promelas*)10 mg/l (*Lepomis macrochirus*)**2530-83-8 [3-(2,3-epoxypropoxy)propyl]trimethoxysilane**LC50/96h 55 mg/l (*Cyp*)EC50/48h 473 mg/l (*Daphnia magna*)ErC50/72h 255 mg/l (*Scenedesmus subspicatus*)

- **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
- **Additional ecological information:**
- **General notes:** Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
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.

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.

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· **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**

UN3082

· **14.2 UN proper shipping name**

· **ADR, IATA**

ENVIRONMENTALLY HAZARDOUS
SUBSTANCE, LIQUID, N.O.S. (epoxide derivates,
oxirane, mono[(C12-14-alkyloxy)methyl] derivs)

· **IMDG**

ENVIRONMENTALLY HAZARDOUS
SUBSTANCE, LIQUID, N.O.S. (epoxide derivates,
oxirane, mono[(C12-14-alkyloxy)methyl] derivs),
MARINE POLLUTANT

· **14.3 Transport hazard class(es)**

· **ADR**

· **Class**

9 (M6) Miscellaneous dangerous substances and
articles.

· **Label**

9

· **IMDG, IATA**

· **Class**

9 Miscellaneous dangerous substances and
articles.

· **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 dangerous 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.

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· **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**

(-)

· **Remarks:**

"Begrenzte Mengen"

· **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. (EPOXIDE DERIVATES, OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL] DERIVS), 9, III

SECTION 15: Regulatory information

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

· **Directive 2012/18/EU**

· **Qualifying quantity (tonnes) for the application of lower-tier requirements**

200 t

· **Qualifying quantity (tonnes) for the application of upper-tier requirements**

500 t

· **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.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

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H332 Harmful if inhaled.

H411 Toxic to aquatic life with long lasting effects.

· **Department issuing data specification sheet:**

· **Abbreviations and acronyms:**

Environment protection department.

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

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 (REACH)

PNEC: Predicted No-Effect Concentration (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 Irrit. 2: Skin corrosion/irritation – Category 2

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

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

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

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