



BE SURE. BUILD SURE.

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

Printing date 13.05.2023

Version number 24 (replaces version 23)

Revision: 13.05.2023

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

· 1.1 Product identifier

· Trade name **MC-DUR Zero VK - Komponente B**

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

· Sector of Use SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

· Application of the substance

/ the mixture Epoxy binder

· 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

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MC-Bauchemie Müller GmbH & Co. KG

Am Kruppwald 1-8

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Tel.: ++49(0)2041-101-0

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E-Mail: info@mc-bauchemie.de

· 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

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H312 Harmful in contact with skin.

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.

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Hazard pictograms



GHS05 GHS07

Signal word

Danger

Hazard-determining components of labelling:

decarboxylating cashew nut shell liquid
Isophorone diamine
Tetraethylenepentamine
Polyamine adduct

Hazard statements

H302 Harmful if swallowed.
H312 Harmful in contact with skin.
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.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.
vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description: Mixture consisting of the following components.

Dangerous components:

CAS: 8007-24-7 EINECS: 232-355-4	decarboxylating cashew nut shell liquid Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Irrit. 2, H315; Skin Sens. 1, H317	30-60%
CAS: 2855-13-2	Isophorone diamine Skin Corr. 1B, H314; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; Aquatic Chronic 3, H412	≥10-<25%
	Polyamine adduct Eye Dam. 1, H318; Skin Irrit. 2, H315	10-30%

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CAS: 9046-10-0	Polyoxypropylenediamine Skin Corr. 1B, H314; Aquatic Chronic 3, H412	≥5-<10%
CAS: 90640-66-7 EINECS: 292-587-7	Tetraethylenepentamine Skin Corr. 1B, H314; Aquatic Chronic 2, H411; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317	≥5-<10%
CAS: 90-72-2 EINECS: 202-013-9 Reg.nr.: 2119560597-27	2,4,6-tris(dimethylaminomethyl)phenol Skin Corr. 1C, H314; Eye Dam. 1, H318; Acute Tox. 4, H302	≥3-<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.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation**

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.

· **After eye contact**

Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing**

Instantly call for doctor.
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.

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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:**
*Inform respective authorities in case product reaches water or sewage system.
Dilute with much 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**
*Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.*
- **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.*
- **Storage class** *8A*
- **7.3 Specific end use(s)** *No further relevant information available.*

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **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.*

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· DNELs

2855-13-2 Isophorone diamine

Oral DNEL 0.526 mg/kg bw/Tag (ArL)

Inhalative DNEL 20.1 mg/m³ (ArL)

9046-10-0 Polyoxypropylenediamine

Oral DNEL 0.04 mg/kg bw/Tag (ArL)

Dermal DNEL 2.5 mg/kg bw/day (ArL)

90-72-2 2,4,6-tris(dimethylaminomethyl)phenol

Inhalative DNEL 0.31 mg/m³ (ArL)

· PNECs

2855-13-2 Isophorone diamine

PNEC 0.006 mg/l (Mew)

0.06 mg/l (Suw)

PNEC 0.578 mg/kg dwt (Sediment)

5.784 mg/kg dwt (Fresh water sediment)

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)

90-72-2 2,4,6-tris(dimethylaminomethyl)phenol

PNEC 0.2 mg/l (Sewage Treatment Plant)

0.0084 mg/l (Mew)

0.084 mg/l (Suw)

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

· 8.2 Exposure controls

· Appropriate engineering controls

No further data; see section 7.

· Individual protection measures, such as 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.

· Breathing equipment:

A2-P3

· Hand protection

Protective gloves.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

After use of gloves apply skin-cleaning agents and skin cosmetics.

· Material of gloves

-

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- **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/face 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

- **Physical state** *Fluid*
- **Colour:** *Yellow*
- **Smell:** *Amine-like*
- **Odour threshold:** *Not determined.*
- **Melting point/freezing point:** *Not determined*
- **Boiling point or initial boiling point and boiling range** *247 °C (2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine)*
- **Flammability** *Not applicable.*
- **Lower and upper explosion limit**
- **Lower:** *Not determined.*
- **Upper:** *Not determined.*
- **Flash point:** *>100 °C*
- **Auto-ignition temperature:** *380 °C (2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine)*
- **Decomposition temperature:** *Not determined.*
- **pH** *Mixture reacts violently with water.
Not determined.*
- **Viscosity:**
- **Kinematic viscosity** *Not determined.*
- **dynamic at 20 °C:** *1050 mPas*
- **Solubility**
- **Water:** *Partly miscible*
- **Partition coefficient n-octanol/water (log value)** *Not determined.*
- **Steam pressure at 20 °C:** *0 hPa*
- **Density and/or relative density**
- **Density at 20 °C** *0.98 g/cm³*
- **Relative density** *Not determined.*
- **Vapour density** *Not determined.*

· 9.2 Other information

- **Appearance:**
- **Form:** *Liquid*

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· **Important information on protection of health and environment, and on safety.**

- **Self-inflammability:** Product is not selfigniting.
- **Explosive properties:** Product is not explosive.
- **Change in condition**
- **Evaporation rate** Not determined.

· **Information with regard to physical hazard classes**

- **Explosives** Void
- **Flammable gases** Void
- **Aerosols** Void
- **Oxidising gases** Void
- **Gases under pressure** Void
- **Flammable liquids** Void
- **Flammable solids** Void
- **Self-reactive substances and mixtures** Void
- **Pyrophoric liquids** Void
- **Pyrophoric solids** Void
- **Self-heating substances and mixtures** Void
- **Substances and mixtures, which emit flammable gases in contact with water** Void
- **Oxidising liquids** Void
- **Oxidising solids** Void
- **Organic peroxides** Void
- **Corrosive to metals** Void
- **Desensitised explosives** Void

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 hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Harmful if swallowed.
Harmful in contact with skin.

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LD/LC50 values that are relevant for classification:

2855-13-2 Isophorone diamine

Oral LD50 1030 mg/kg (ATE)

1030 mg/kg (rat)

NOAEL 250 mg/kg (rat)

Dermal LD50 1840 mg/kg (rabbit)

>2000 mg/kg (rat)

9046-10-0 Polyoxypropylenediamine

Oral LD50 2855 mg/kg (Rat)

Dermal LD50 2980 mg/kg (Kan)

90-72-2 2,4,6-tris(dimethylaminomethyl)phenol

Oral LD50 2169 mg/kg (rat)

NOAEL 15 mg/kg (rat)

· **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.

· **11.2 Information on other hazards**

· **Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

2855-13-2 Isophorone diamine

LC50/96h 110 mg/l (Leucidus idus)

EC50 1120 mg/l (Pseudomonas putida)

EC50/48h 23 mg/l (Daphnia magna)

NOEC 1.5 mg/l (Desmodesmus subspicatus)

3 mg/l (Daphnia magna)

ErC50/72h >50 mg/l (Desmodesmus subspicatus)

90-72-2 2,4,6-tris(dimethylaminomethyl)phenol

EC50/72h 84 mg/l (Desmodesmus subspicatus)

LC50/96h 175 mg/l (Cyp)

NOEC 2 mg/l (BEL)

6.25 mg/l (Desmodesmus subspicatus)

· **12.2 Persistence and degradability** No further relevant information available.

· **12.3 Bioaccumulative potential** No further relevant information available.

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- **12.4 Mobility in soil** *No further relevant information available.*
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** *Not applicable.*
- **vPvB:** *Not applicable.*
- **12.6 Endocrine disrupting properties** *The product does not contain substances with endocrine disrupting properties.*
- **12.7 Other adverse effects**
- **Remark:** *Harmful to fish*
- **Additional ecological information:**
- **General notes:** *Harmful to aquatic organisms
Must not reach sewage water or drainage ditch undiluted or unneutralised.
Do not allow product to reach ground water, water bodies or sewage system.
Danger to drinking water if even small quantities leak into soil.*

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:** *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 or ID number**
- **ADR, IMDG, IATA** *UN2735*
- **14.2 UN proper shipping name**
- **ADR, IMDG, IATA** *AMINES, LIQUID, CORROSIVE, N.O.S. (Isophorone diamine, Tetraethylenepentamine)*
- **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**
- **ADR, IMDG, IATA** *II*

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· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user <i>Warning: Corrosive substances.</i>	
· Kemler Number:	80
· EMS Number:	F-A,S-B
· Segregation groups	(SGG18) Alkalis
· Stowage Category	A
· Segregation Code	SG35 Stow "separated from" SGG1-acids
· 14.7 Maritime transport in bulk according to IMO instruments <i>Not applicable.</i>	
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 <i>Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml</i>
· Transport category	2
· Tunnel restriction code	E
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 <i>Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml</i>
· UN "Model Regulation":	UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (I S O P H O R O N E D I A M I N E , TETRAETHYLENEPENTAMINE), 8, II

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	<i>None of the ingredients is listed.</i>
· 15.2 Chemical safety assessment:	<i>A Chemical Safety Assessment has not been carried out.</i>

SECTION 16: Other information

· Relevant phrases	<i>H302 Harmful if swallowed. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage.</i>
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H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

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)
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 (UK REACH)
PNEC: Predicted No-Effect Concentration (UK 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 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
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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