



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 6

Revision: 17.10.2021

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

- **Product identifier**
- **Trade name** **MC-Estrifan IH - Komponente B**
- **Relevant identified uses of the substance or mixture and uses advised against** No further relevant information available.
- **Application of the substance / the mixture**  
Epoxy resin  
Injektion  
Hardening agent/ Curing agent
- **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
- **Emergency telephone number:** Tel.: +49 / (0)700 24112112 (MCR)  
Tel.: +48612864565

### 2 Hazards identification

- **Classification of the substance or mixture**  
Acute Tox. 4 H302 Harmful if swallowed.  
Acute Tox. 5 H313 May be harmful in contact with skin.  
Acute Tox. 5 H333 May be harmful if inhaled.  
Skin Corr. 1A 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.
- **Label elements**
- **GHS label elements** The product is classified and labelled according to the Globally Harmonised System (GHS).
- **Hazard pictograms**



GHS05 GHS07

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- **Signal word** Danger
- **Hazard-determining components of labelling:**
  - 2-methylpentane-1,5-diamine
  - 3-aminomethyl-3,5,5-trimethylcyclohexylamine
  - Benzyl alcohol
  - Amine polymer
- **Hazard statements**
  - Harmful if swallowed.
  - May be harmful in contact with skin.
  - May be harmful if inhaled.
  - Causes severe skin burns and eye damage.
  - May cause an allergic skin reaction.
  - Harmful to aquatic life with long lasting effects.
- **Precautionary statements**
  - Do not breathe dusts or mists.
  - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - Immediately call a POISON CENTER/doctor.
  - Specific treatment (see on this label).
  - Take off contaminated clothing and wash it before reuse.
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterisation: Mixtures**
- **Description:**
  - Binding agent with colouring agents.
  - Mixture consisting of the following components.

· **Dangerous components:**

15520-10-2	2-methylpentane-1,5-diamine Skin Corr. 1A, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Flam. Liq. 4, H227	25-50%
2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; Aquatic Chronic 3, H412	25-50%
	Amine polymer Eye Dam. 1, H318; Skin Irrit. 2, H315; Skin Sens. 1B, H317	≥10-<25%
100-51-6	Benzyl alcohol Acute Tox. 4, H302; Acute Tox. 4, H332	<25%
9046-10-0	Polyoxypropylenediamine Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 5, H303; Acute Tox. 5, H313; Aquatic Chronic 3, H412	≥5-<10%
90-72-2	2,4,6-tris(dimethylaminomethyl)phenol Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319	<1.5%

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· **Additional information**

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

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### 4 First aid measures

· **Description of first aid measures**

· **General information**

Instantly remove any clothing soiled by the product.  
Take affected persons into the open air.

· **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.

· **Information for doctor**

· **Most important symptoms and effects, both acute and delayed**

No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### 5 Firefighting measures

· **Extinguishing media**

· **Suitable extinguishing agents** Use fire fighting measures that suit the environment.

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

No further relevant information available.

· **Advice for firefighters**

· **Protective equipment:**

No special measures required.

### 6 Accidental release measures

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

Wear protective equipment. Keep unprotected persons away.

· **Environmental precautions:**

Prevent material from reaching sewage system, holes and cellars.

· **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.

· **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.

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### 7 Handling and storage

- **Handling**
- **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.
- **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.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

· **Components with critical values that require monitoring at the workplace:**

**100-51-6 Benzyl alcohol**

WEEL (USA) Long-term value: 10 ppm

· **DNELs**

**15520-10-2 2-methylpentane-1,5-diamine**

Dermal DNEL 1.5 mg/kg bw/day (ArL)

Inhalative DNEL 0.25 mg/m<sup>3</sup> (ArL)

0.5 mg/m<sup>3</sup> (Ark)

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

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

Inhalative DNEL 20.1 mg/m<sup>3</sup> (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<sup>3</sup> (ArL)

110 mg/m<sup>3</sup> (Ark)

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**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/m<sup>3</sup> (ArL)**· PNECs****15520-10-2 2-methylpentane-1,5-diamine**

PNEC 0.042 mg/l (Mew)

0.42 mg/l (Suw)

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

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)

**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)

**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.

**· 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

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

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· **Material of gloves**

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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 safety glasses.

· **Body protection:**

Protective work clothing.

### 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Fluid
Colour:	Light yellow
Smell:	Characteristic

· **Change in condition**

Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	Not determined

Flash point:	111 °C
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Ignition temperature:	380 °C
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Self-inflammability:	Product is not selfigniting.
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Explosive properties:	Product is not explosive.
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· **Critical values for explosion:**

Lower:	1.3 Vol %
Upper:	13.0 Vol %

Steam pressure at 20 °C:	0.1 hPa
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Density at 20 °C	1.01 g/cm <sup>3</sup>
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· **Solubility in / Miscibility with Water:**

Not miscible or difficult to mix

· **Other information**

No further relevant information available.

### 10 Stability and reactivity

· **Reactivity**

No further relevant information available.

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- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**

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

#### 15520-10-2 2-methylpentane-1,5-diamine

Oral	LD50	1170 mg/kg (rat)
Dermal	LD50	1870 mg/kg (rabbit)
Inhalative	LC50/4 h	19.6 mg/l (rat)

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

Oral	LD50	1030 mg/kg (rat)
	NOAEL	250 mg/kg (rat)
Dermal	LD50	1840 mg/kg (rabbit)
		>2000 mg/kg (rat)

#### 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)

#### 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)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Caustic effect on skin and mucous membranes.
- **Serious eye damage/irritation** Strong caustic effect.
- **Respiratory or skin sensitisation** Sensitization possible by skin contact.

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**Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:

Harmful  
Corrosive  
Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

### 12 Ecological information

**Toxicity**

**Aquatic toxicity:**

**15520-10-2 2-methylpentane-1,5-diamine**

EC50/72h	>100 mg/l (algae)
EC50	1825 mg/l (fish)
EC50/48h	19.8 mg/l (Daphnia magna)

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

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)

**100-51-6 Benzyl alcohol**

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

**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)

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

**Behaviour in environmental systems:**

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

**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.

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

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- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **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.

### 14 Transport information

- **UN-Number**
- **ADR, IMDG, IATA** UN2735
- **UN proper shipping name**
- **ADR, IMDG, IATA** AMINES, LIQUID, CORROSIVE, N.O.S. (2-methylpentane-1,5-diamine, ISOPHORONEDIAMINE)
- **Transport hazard class(es)**
- **ADR**
- **Class** 8 (C7) Corrosive substances.
- **Label** 8
- **IMDG, IATA**
- **Class** 8 Corrosive substances.
- **Label** 8
- **Packing group**
- **ADR, IMDG, IATA** II
- **Environmental hazards:**
- **Marine pollutant:** nein  
No
- **Special precautions for user** Warning: Corrosive substances.
- **Kemler Number:** 80
- **EMS Number:** F-A,S-B
- **Segregation groups** Alkalis
- **Stowage Category** A
- **Segregation Code** SG35 Stow "separated from" SGG1-acids
- **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)**

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

· **Remarks:**

1 kg Gebinde: Begrenzte Mengen

#### · **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 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (2-METHYLPENTANE-1,5-DIAMINE, ISOPHORONEDIAMINE), 8, II

## 15 Regulatory information

· **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.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 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.

· **Department issuing data**

**specification sheet:**

Environment protection department.

· **Contact:**

· **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

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)

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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  
Flam. Liq. 4: Flammable liquids – Category 4  
Acute Tox. 4: Acute toxicity – Category 4  
Acute Tox. 5: Acute toxicity – Category 5  
Skin Corr. 1A: Skin corrosion/irritation – Category 1A  
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  
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2  
Skin Sens. 1: Skin sensitisation – Category 1  
Skin Sens. 1B: Skin sensitisation – Category 1B  
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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