



BE SURE. BUILD SURE.

Page 1/11

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

Printing date 16.10.2021

Version number 9

Revision: 14.10.2021

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

#### 1.1 Product identifier

Trade name **MC-DUR LF 480 - Komponente B**

Article number: 665

#### 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 impregnation  
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

Acute Tox. 4 H302 Harmful if swallowed.

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.

Repr. 2 H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

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.

(Contd. on page 2)

GB



BE SURE. BUILD SURE.

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

Printing date 16.10.2021

Version number 9

Revision: 14.10.2021

**Trade name MC-DUR LF 480 - Komponente B**

(Contd. of page 1)

**Hazard pictograms**



GHS05 GHS07 GHS08

**Signal word**

**Danger**

**Hazard-determining components of labelling:**

2-methylpentane-1,5-diamine  
Amine polymer  
2-piperazin-1-ylethylamine  
Benzyl alcohol  
3-aminomethyl-3,5,5-trimethylcyclohexylamine  
2,4,6-Tris-(1-Phenyl-Ethyl) carbolic acid

**Hazard statements**

H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.  
H373 May cause damage to organs through prolonged or repeated exposure.  
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 Chemical characterisation: Mixtures**

**Description:** Mixture consisting of the following components.

**Dangerous components:**

	Amine polymer Eye Dam. 1, H318; Skin Irrit. 2, H315; Skin Sens. 1B, H317	25-50%
CAS: 15520-10-2 EINECS: 239-556-6	2-methylpentane-1,5-diamine Skin Corr. 1A, H314; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	≥5-<25%

(Contd. on page 3)



BE SURE. BUILD SURE.

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

Printing date 16.10.2021

Version number 9

Revision: 14.10.2021

**Trade name MC-DUR LF 480 - Komponente B**

(Contd. of page 2)

CAS: 100-51-6 EINECS: 202-859-9 Reg.nr.: 01-2119492630-38	Benzyl alcohol Acute Tox. 4, H302; Acute Tox. 4, H332	<25%
CAS: 2855-13-2 EINECS: 220-666-8 Reg.nr.: 01-2119514687-32	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	≥5-<25%
CAS: 140-31-8 EINECS: 205-411-0 Reg.nr.: 01-2119471486-30	2-piperazin-1-ylethylamine Acute Tox. 3, H311; Repr. 2, H361fd; STOT RE 1, H372; Skin Corr. 1B, H314; Acute Tox. 4, H302; Skin Sens. 1, H317; Aquatic Chronic 3, H412	≥5-<10%
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	≥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. Take affected persons into the open air.
- **After inhalation** Supply fresh air; consult doctor in case of symptoms.
- **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.

· **Danger**

Danger of gastric perforation.

· **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** CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

· **For safety reasons unsuitable extinguishing agents**

Water with a full water jet.

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

Can be released in case of fire  
Carbon monoxide (CO)

(Contd. on page 4)



BE SURE. BUILD SURE.

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

Printing date 16.10.2021

Version number 9

Revision: 14.10.2021

**Trade name MC-DUR LF 480 - Komponente B**

(Contd. of page 3)

- **5.3 Advice for firefighters**
- **Protective equipment:**

Nitrogen oxides (NOx)  
(Traces)

Wear self-contained breathing apparatus.

**SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures**
- **6.2 Environmental precautions:**

Wear protective equipment. Keep unprotected persons away.

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

Prevent material from reaching sewage system, holes and cellars. Inform respective authorities in case product reaches water or sewage system.

- **6.4 Reference to other sections**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of contaminated material as waste according to item 13.

See Section 8 for information on personal protection equipment.  
See Section 7 for information on safe handling

**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:**

Store away from foodstuffs.

- **Further information about storage conditions:**

Keep container tightly sealed. Protect from heat and direct sunlight.

- **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.

(Contd. on page 5)



BE SURE. BUILD SURE.

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

Printing date 16.10.2021

Version number 9

Revision: 14.10.2021

**Trade name MC-DUR LF 480 - Komponente B**

(Contd. of page 4)

· **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**

**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)

**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)

**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)

**140-31-8 2-piperazin-1-ylethylamine**

Dermal	DNEL	3.33 mg/kg bw/day (ArL)
Inhalative	DNEL	10.6 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)
------	-------------------------------------

**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)

**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)

**140-31-8 2-piperazin-1-ylethylamine**

PNEC	250 mg/l (Kla) 0.0058 mg/l (Mew)
------	-------------------------------------

(Contd. on page 6)



BE SURE. BUILD SURE.

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

Printing date 16.10.2021

Version number 9

Revision: 14.10.2021

**Trade name MC-DUR LF 480 - Komponente B**

(Contd. of page 5)

PNEC	0.058 mg/l (S <sub>w</sub> )
	1 mg/kg dwt (B <sub>od</sub> )
	21.5 mg/kg dwt (Sediment)
	215 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
  - After use of gloves apply skin-cleaning agents and skin cosmetics.
- **Material of 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 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:**
  - Form:** Fluid
  - Colour:** Transparent
  - Smell:** Characteristic
- **pH-value at 20 °C:** 11.6 (IPD)
- **Change in condition**
  - Melting point/freezing point:** Not determined
  - Initial boiling point and boiling range:** > 200 °C
- **Flash point:** > 100 °C
- **Ignition temperature:** 380 °C

(Contd. on page 7)



BE SURE. BUILD SURE.

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

Printing date 16.10.2021

Version number 9

Revision: 14.10.2021

**Trade name MC-DUR LF 480 - Komponente B**

(Contd. of page 6)

· <b>Self-inflammability:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Product is not explosive.
· <b>Critical values for explosion:</b>	
<b>Lower:</b>	1.3 Vol %
<b>Upper:</b>	13.0 Vol %
· <b>Steam pressure at 20 °C:</b>	0.1 hPa
· <b>Density at 20 °C</b>	0.98 g/cm <sup>3</sup>
· <b>Solubility in / Miscibility with Water:</b>	Not miscible or difficult to mix
· <b>Viscosity:</b>	
<b>dynamic at 20 °C:</b>	300 mPas
· <b>9.2 Other information</b>	No further relevant information available.

**SECTION 10: Stability and reactivity**

· <b>10.1 Reactivity</b>	No further relevant information available.
· <b>10.2 Chemical stability</b>	
· <b>Thermal decomposition / conditions to be avoided:</b>	No decomposition if used according to specifications.
· <b>10.3 Possibility of hazardous reactions</b>	No dangerous reactions known
· <b>10.4 Conditions to avoid</b>	No further relevant information available.
· <b>10.5 Incompatible materials:</b>	No further relevant information available.
· <b>10.6 Hazardous decomposition products:</b>	No dangerous decomposition products known

**SECTION 11: Toxicological information**

· <b>11.1 Information on toxicological effects</b>	
· <b>Acute toxicity</b>	Harmful if swallowed.

· **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)

**100-51-6 Benzyl alcohol**

Oral	LD50	1230 mg/kg (rat)
	NOAEL 2nd year study	200 mg/kg (mouse)
		200 mg/kg (rat)

(Contd. on page 8)





BE SURE. BUILD SURE.

Page 8/11

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 16.10.2021

Version number 9

Revision: 14.10.2021

Trade name **MC-DUR LF 480 - Komponente B**

(Contd. of page 7)

Dermal	LD50	2000 mg/kg (rabbit)
Inhalative	LC50/4 h	>4178 mg/l (rat)
<b>2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine</b>		
Oral	LD50	1030 mg/kg (rat)
	NOAEL	250 mg/kg (rat)
Dermal	LD50	1840 mg/kg (rabbit)
		>2000 mg/kg (rat)
<b>140-31-8 2-piperazin-1-ylethylamine</b>		
Oral	LD50	2140 mg/kg (rat)
Dermal	LD50	866 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.
- **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** Suspected of damaging fertility. Suspected of damaging the unborn child.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** May cause damage to organs through prolonged or repeated exposure.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

### · 12.1 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)

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

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

##### **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)

(Contd. on page 9)

GB





BE SURE. BUILD SURE.

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

Printing date 16.10.2021

Version number 9

Revision: 14.10.2021

**Trade name MC-DUR LF 480 - Komponente B**

(Contd. of page 8)

NOEC	1.5 mg/l ( <i>Desmodesmus subspicatus</i> ) 3 mg/l ( <i>Daphnia magna</i> )
ErC50/72h	>50 mg/l ( <i>Desmodesmus subspicatus</i> )
<b>140-31-8 2-piperazin-1-ylethylamine</b>	
EC50/72h	>1000 mg/l (algae)
LC50/96h	2190 mg/l (fish)

- **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.

#### 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** UN2289
- **14.2 UN proper shipping name**
- **ADR, IMDG, IATA** ISOPHORONEDIAMINE solution
- **14.3 Transport hazard class(es)**
- **ADR**
- **Class** 8 (C7) Corrosive substances.
- **Label** 8
- **IMDG, IATA**
- **Class** 8 Corrosive substances.

(Contd. on page 10)



BE SURE. BUILD SURE.

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

Printing date 16.10.2021

Version number 9

Revision: 14.10.2021

Trade name MC-DUR LF 480 - Komponente B

(Contd. of page 9)

· <b>Label</b>	8
· <b>14.4 Packing group</b> · <b>ADR, IMDG, IATA</b>	III
· <b>14.5 Environmental hazards:</b> · <b>Marine pollutant:</b>	No
· <b>14.6 Special precautions for user</b> · <b>Kemler Number:</b> · <b>EMS Number:</b> · <b>Stowage Category</b> · <b>Segregation Code</b>	Warning: Corrosive substances. 80 F-A,S-B A SG35 Stow "separated from" SGG1-acids
· <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>Transport category</b> · <b>Tunnel restriction code</b>	3 E
· <b>IMDG</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>UN "Model Regulation":</b>	UN 2289 ISOPHORONEDIAMINE SOLUTION, 8, III

#### 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.

(Contd. on page 11)



BE SURE. BUILD SURE.

Page 11/11

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

Printing date 16.10.2021

Version number 9

Revision: 14.10.2021

**Trade name MC-DUR LF 480 - Komponente B**

(Contd. of page 10)

· **Relevant phrases**

H302 Harmful if swallowed.  
H311 Toxic in contact with skin.  
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.  
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.  
H372 Causes damage to organs through prolonged or repeated exposure.  
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)  
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  
Acute Tox. 3: Acute toxicity – Category 3  
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  
Skin Sens. 1: Skin sensitisation – Category 1  
Skin Sens. 1B: Skin sensitisation – Category 1B  
Repr. 2: Reproductive toxicity – Category 2  
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1  
STOT RE 2: Specific target organ toxicity (repeated exposure) – 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.**

GB