



BE SURE. BUILD SURE.

Page 1/12

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

Printing date 05.03.2020

Version number 2

Revision: 05.03.2020

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

· **1.1 Product identifier**

· **Trade name** **MC-Estrifan RIS - Komponente B**
· **UFI:** 77EF-N04V-T00P-HE2F

· **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 resin
Injektion
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.
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 05.03.2020

Version number 2

Revision: 05.03.2020

Trade name MC-Estrifan RIS - Komponente B

(Contd. of page 1)

Hazard pictograms



GHS05 GHS07

Signal word

Danger

Hazard-determining components of labelling:

2-methylpentane-1,5-diamine
3-aminomethyl-3,5,5-trimethylcyclohexylamine
Amine polymer
Benzyl alcohol

Hazard statements

H302 Harmful if swallowed.
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 Chemical characterisation: Mixtures

Description: Binding agent with colouring agents.
Mixture consisting of the following components.

Dangerous components:

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	25-50%
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	25-50%

(Contd. on page 3)



BE SURE. BUILD SURE.

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

Printing date 05.03.2020

Version number 2

Revision: 05.03.2020

Trade name MC-Estrifan RIS - 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, H312; Acute Tox. 4, H332	≥0-<25%
EC number: 949-140-2	Amine polymer Eye Dam. 1, H318; Skin Irrit. 2, H315; Skin Sens. 1B, H317	≥10-<25%
CAS: 9046-10-0 Reg.nr.: 01-2119557899-12	Polyoxypropylenediamine Skin Corr. 1B, H314; Aquatic Chronic 3, H412	≥5-<10%
CAS: 90-72-2 EINECS: 202-013-9 Reg.nr.: 2119560597-27	2,4,6-tris(dimethylaminomethyl)phenol Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319	<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.
- **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.

GB

(Contd. on page 4)



BE SURE. BUILD SURE.

Page 4/12

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

Printing date 05.03.2020

Version number 2

Revision: 05.03.2020

Trade name MC-Estrifan RIS - Komponente B

(Contd. of page 3)

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:** *Prevent material from reaching sewage system, holes and cellars.*
- **6.3 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.*
- **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

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

(Contd. on page 5)

GB



BE SURE. BUILD SURE.

Page 5/12

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

Printing date 05.03.2020

Version number 2

Revision: 05.03.2020

Trade name MC-Estrifan RIS - Komponente B

(Contd. of page 4)

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

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

Inhalative DNEL 0.25 mg/m³ (ArL)0.5 mg/m³ (Ark)**2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine**

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

Inhalative DNEL 20.1 mg/m³ (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/m³ (ArL)110 mg/m³ (Ark)**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)phenolInhalative DNEL 0.31 mg/m³ (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)

(Contd. on page 6)

GB



BE SURE. BUILD SURE.

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

Printing date 05.03.2020

Version number 2

Revision: 05.03.2020

Trade name MC-Estrifan RIS - Komponente B

(Contd. of page 5)

PNEC	0.015 mg/l (Fresh water)
	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**
- **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 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:**
 - **Form:** *Fluid*
 - **Colour:** *Transparent*
 - **Smell:** *Amine-like*

(Contd. on page 7)



BE SURE. BUILD SURE.

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

Printing date 05.03.2020

Version number 2

Revision: 05.03.2020

Trade name MC-Estrifan RIS - Komponente B

(Contd. of page 6)

· Change in condition	
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	205 °C
· Flash point:	> 110 °C
· Ignition temperature:	380 °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	0.95 g/cm ³
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix
· 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** Harmful if swallowed.

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

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

Oral	LD50	1,170 mg/kg (rat)
Dermal	LD50	1,870 mg/kg (rabbit)
Inhalative	LC50/4 h	19.6 mg/l (rat)

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

Oral	LD50	1,030 mg/kg (rat)
	NOAEL	250 mg/kg (rat)

(Contd. on page 8)



BE SURE. BUILD SURE.

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

Printing date 05.03.2020

Version number 2

Revision: 05.03.2020

Trade name MC-Estrifan RIS - Komponente B

(Contd. of page 7)

Dermal	LD50	1,840 mg/kg (rabbit) >2,000 mg/kg (rat)
100-51-6 Benzyl alcohol		
Oral	LD50	1,230 mg/kg (rat)
	NOAEL 2nd year study	200 mg/kg (mouse) 200 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rabbit)
Inhalative	LC50/4 h	>4,178 mg/l (rat)
9046-10-0 Polyoxypropylenediamine		
Oral	LD50	2,855 mg/kg (Rat)
Dermal	LD50	2,980 mg/kg (Kan)
90-72-2 2,4,6-tris(dimethylaminomethyl)phenol		
Oral	LD50	2,169 mg/kg (rat)
	NOAEL	15 mg/kg (rat)

- **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.
- **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:**

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

EC50/72h	>100 mg/l (algae)
EC50	1,825 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	1,120 mg/l (Pseudomonas putida)
EC50/48h	23 mg/l (Daphnia magna)
NOEC	1.5 mg/l (Desmodesmus subspicatus)

(Contd. on page 9)



BE SURE. BUILD SURE.

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

Printing date 05.03.2020

Version number 2

Revision: 05.03.2020

Trade name MC-Estrifan RIS - Komponente B

(Contd. of page 8)

ErC50/72h	3 mg/l (<i>Daphnia magna</i>) >50 mg/l (<i>Desmodesmus subspicatus</i>)
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>)
90-72-2 2,4,6-tris(dimethylaminomethyl)phenol	
EC50/72h	84 mg/l (<i>Desmodesmus subspicatus</i>)
LC50/96h	175 mg/l (Cyp)
NOEC	2 mg/l (BEL) 6.25 mg/l (<i>Desmodesmus subspicatus</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.

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.

· European waste catalogue	
08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 01 00	wastes from MFSU and removal of paint and varnish
08 01 11	waste paint and varnish containing organic solvents or other dangerous substances

(Contd. on page 10)



BE SURE. BUILD SURE.

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

Printing date 05.03.2020

Version number 2

Revision: 05.03.2020

Trade name MC-Estrifan RIS - Komponente B

(Contd. of page 9)

· **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**

2735 AMINES, LIQUID, CORROSIVE, N.O.S. (2-methylpentane-1,5-diamine, ISOPHORONEDIAMINE)

· **IMDG, IATA**

AMINES, LIQUID, CORROSIVE, N.O.S. (2-methylpentane-1,5-diamine, ISOPHORONEDIAMINE)

· **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:**

nein

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)**

· **Excepted quantities (EQ)**

1L

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500

(Contd. on page 11)



BE SURE. BUILD SURE.

Page 12/12

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

Printing date 05.03.2020

Version number 2

Revision: 05.03.2020

Trade name MC-Estrifan RIS - Komponente B

(Contd. of page 11)

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 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

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

GB