



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 A
- **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
- **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
- **Informing department:** MC-Bauchemie AG
Hagackerstr. 10
CH-8953 Dietikon
Tel.: +44-7400510
Fax : +44-7400533
- **Emergency telephone number:** msds@mc-bauchemie.de
Tel.: +49 / (0)700 24112112 (MCR)
Tel.: +48612864565

2 Hazards identification

- **Classification of the substance or mixture**
 - Skin Irrit. 2 H315 Causes skin irritation.
 - Eye Irrit. 2A H319 Causes serious eye irritation.
 - Skin Sens. 1 H317 May cause an allergic skin reaction.
 - Aquatic Acute 3 H402 Harmful to aquatic life.
 - Aquatic Chronic 2 H411 Toxic 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**

GHS07 GHS09
- **Signal word** Warning
- **Hazard-determining components of labelling:** Propyl -2,2-diphenyl-4,4'dipropylloxirane polymers and homologues
molecular weight < 700

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- Hazard statements**
 oxirane, mono[(C12-14-alkyloxy)methyl] derivs
 2,2'-[methylenebis(p-phenyleneoxymethylene)]bisoxirane polymers
 and homologues, molecular weight < 700
 1,6-hexene-diglycidylether
 Causes skin irritation.
 Causes serious eye irritation.
 May cause an allergic skin reaction.
 Harmful to aquatic life.
- Precautionary statements**
 Toxic to aquatic life with long lasting effects.
 Avoid breathing dust/fume/gas/mist/vapours/spray.
 Avoid release to the environment.
 Wear protective gloves / eye protection / face protection.
 IF IN EYES: Rinse cautiously with water for several minutes.
 Remove contact lenses, if present and easy to do. Continue
 rinsing.
 If skin irritation or rash occurs: Get medical advice/attention.
 If eye irritation persists: Get medical advice/attention.
- Other hazards**
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

3 Composition/information on ingredients

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

Dangerous components:

1675-54-3	bis[4-(2,3-epoxypropoxy)phenyl]propane Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	70-100%
100-51-6	Benzyl alcohol Acute Tox. 4, H302; Acute Tox. 4, H332	<25%
68609-97-2	oxirane, mono[(C12-14-alkyloxy)methyl] derivs Skin Irrit. 2, H315; Skin Sens. 1, H317	≥10-<25%
9003-36-5	2,2'-[methylenebis(p-phenyleneoxymethylene)]bisoxirane polymers and homologues, molecular weight < 700 Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; Acute Tox. 5, H303; Acute Tox. 5, H313; Aquatic Acute 2, H401	≥2.5-<10%
16096-31-4	1,6-hexene-diglycidylether Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; Acute Tox. 5, H313; Aquatic Acute 3, H402; Aquatic Chronic 3, H412	≥1-<2.5%

- 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**
- **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** Rinse out mouth and then drink plenty of water.
Seek medical treatment.
- **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** Not required.
- **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).
- **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.

7 Handling and storage

- **Handling**
- **Precautions for safe handling** Store in cool, dry place in tightly closed containers.
Open and handle container with care.

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- **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**

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) 110 mg/m ³ (Ark)

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)

16096-31-4 1,6-hexene-diglycidylether

Dermal	DNEL	2.8 mg/kg bw/day (ArL)
Inhalative	DNEL	4.9 mg/m ³ (ArL)

· **PNECs**

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)

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	5.27 mg/kg dwt (Fresh water sediment)
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)
16096-31-4 1,6-hexene-diglycidylether	
PNEC	0.0115 mg/l (Fresh water)
	0.00115 mg/l (Mew)
PNEC	0.223 mg/kg dwt (Bod)
	0.0283 mg/kg dwt (Sediment)
	0.283 mg/kg dwt (Fresh water sediment)

- **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.
- **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.

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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:	200 °C

Flash point:	111 °C
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Ignition temperature:	184 °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	1.14 g/cm ³
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· **Solubility in / Miscibility with**

Water:	Not miscible or difficult to mix
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Other information	No further relevant information available.
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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

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11 Toxicological information

- Information on toxicological effects
- Acute toxicity

- LD/LC50 values that are relevant for classification:

1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane

Dermal	LD50	23000 mg/kg (rabbit)
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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)

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

Oral	LD50	17100 mg/kg (rat)
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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)

16096-31-4 1,6-hexene-diglycidylether

Oral	LD50	>8500 mg/kg (rat)
Dermal	LD50	>4900 mg/kg (rat)

- Primary irritant effect:
- Skin corrosion/irritation Irritant for skin and mucous membranes.
- Serious eye damage/irritation Irritant effect.
- Respiratory or skin sensitisation Sensitization possible by skin contact.
- 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:
Irritant

12 Ecological information

- 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)

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ErC50/72h	11 mg/l (Selenastrum capricornutum)
100-51-6 Benzyl alcohol	
IC50/72h	700 mg/l (algae)
LC50/96h	460 mg/l (Pimephales promelas)
	10 mg/l (Lepomis macrochirus)
68609-97-2 oxirane, mono[(C12-14-alkyloxy)methyl] derivs	
EbC50/72h	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)
16096-31-4 1,6-hexene-diglycidylether	
LC50/96h	30 mg/l (Leucidus idus)
EC50/48h	47 mg/l (Daphnia magna)

- **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.
- **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.

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14 Transport information

· UN-Number	
· ADR, IMDG, IATA	UN3082
· 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
· 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
· Packing group	
· ADR, IMDG, IATA	III
· Environmental hazards:	
· Marine pollutant:	no Yes Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
· Special marking (IATA):	Symbol (fish and tree)
· Special precautions for user	Warning: Miscellaneous dangerous substances and articles.
· Kemler Number:	90
· EMS Number:	F-A, S-F
· Stowage Category	A
· Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· 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	(-)

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· Remarks:	1 kg Gebinde: Begrenzte Mengen
· IMDG	5L
· Limited quantities (LQ)	Code: E1
· Excepted quantities (EQ)	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

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.
- **Seveso category** E2 Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
- **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)
 - DNEL: Derived No-Effect Level (REACH)

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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. 5: Acute toxicity – Category 5

Skin Irrit. 2: Skin corrosion/irritation – Category 2

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

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

Skin Sens. 1: Skin sensitisation – Category 1

Aquatic Acute 2: Hazardous to the aquatic environment - acute aquatic hazard – Category 2

Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard – Category 3

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

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