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### Safety data sheet according to Regulation (EC) No 1907/2006, Article 31

Printing date 09.03.2024 Version number 21 (replaces version 20) Revision: 09.03.2024

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

· 1.1 Product identifier

· Trade name MC-Estrifan IH - Komponente A

1447 · Article number:

· 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

· 1.3 Details of the supplier of the safety data sheet

MC-Bauchemie Müller GmbH & Co. KG Manufacturer/Supplier:

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:

1.4 Emergency telephone

number: Tel.: +49 / (0)700 24112112 (MCR)

Tel.: +1 872 5888271 (MCR)

msds@mc-bauchemie.de

#### **SECTION 2: Hazards identification**

· 2.1 Classification of the substance or mixture

· Classification according to Regulation (EC) No 1272/2008

Skin Irrit. 2 H315 Causes skin irritation.

Eve Irrit. 2 H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Aquatic Chronic 2 H411 Toxic 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.

· Hazard pictograms





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· Signal word

**BE SURE. BUILD SUR** 

Warning

· Hazard-determining

components of labelling:

epoxide derivates

Oxirane, mono[(C12-14-alkyloxy)methyl] derivatives

Reaction mass of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)] dioxirane and 2-({2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy}methyl) oxirane and 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]

dioxirane

Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane

(1:2)

· Hazard statements H315 Causes skin irritation.

H319 Causes serious eye irritation. H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

· Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/

spray.

P273 Avoid release to the environment.

P280 Wear protective gloves / eye protection / face

protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for

several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P333+P313 If skin irritation or rash occurs: Get medical

advice/attention.

P337+P313 If eye irritation persists: Get medical advice/

attention.

· Additional information: EUH205 Contains epoxy constituents. May produce an allergic

reaction.

· 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:** Resin mixture with colouring agents.

Mixture consisting of the following components.

· Dangerous components:		
CAS: 1675-54-3	epoxide derivates	60-80%
EINECS: 216-823-5	Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317, EUH205	
CAS: 100-51-6	Benzyl alcohol	10-30%
	Acute Tox. 4, H302; Acute Tox. 4, H332; Eye Irrit. 2, H319	
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CAS: 68609-97-2	Oxirane, mono[(C12-14-alkyloxy)methyl] derivatives	10-30%
EINECS: 271-846-8	Skin Irrit. 2, H315; Skin Sens. 1, H317, EUH205	1
CAS: 9003-36-5 EC number: 701-26	Reaction mass of 2,2'-[methylenebis(4,1);3-0 phenyleneoxymethylene)]dioxirane and 2-({2-[4-(oxiran-2 ylmethoxy)benzyl]phenoxy}methyl)oxirane and 2,2' [methylenebis(2,1-phenyleneoxymethylene)]dioxirane Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Skin Sens. 1, H317	-
CAS: 933999-84-9	Reaction products of hexane-1,6-diol with 2-(chloromethyl, oxirane (1:2) Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; Aquatic Chronic 3, H412	) ≥1-<2.5%

• 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

• 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.

### **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.

#### SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and

emergency procedures Not required.

· 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).

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· 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.

· Storage class 10

#### 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.

·DNELs		·
CAS: 100	-51-6 B	enzyl 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)
CAS: 686	09-97-2	Oxirane, mono[(C12-14-alkyloxy)methyl] derivatives
Oral	DNEL	1 mg/kg bw/Tag (ArL)
Dermal	DNEL	1.7 mg/kg bw/day (ArL)
Inhalative	DNEL	0.98 mg/m³ (ArL)

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PNECs

CAS: 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)

CAS: 68609-97-2 Oxirane, mono[(C12-14-alkyloxy)methyl] derivatives

PNEC 0.00072 mg/l (Mew)

0.0072 mg/l (Freshwater)

PNEC 80.12 mg/kg dwt (Bod)

6.677 mg/kg dwt (Sediment)

66.77 mg/kg dwt (Fresh water sediment)

· 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: If workplace limit values cannot be complied with by ventilation

measures or if rooms cannot be technically ventilated, respiratory protection must be worn: Use combination filter A1-P2 (brown/white) in rooms that cannot be ventilated. If oxygen deficiency is expected, use self-contained breathing apparatus. Observe wearing time limits according to §9 (3) GefStoffV in conjunction

with BGR 190.

· 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

The selection of the suitable gloves does not only depend on the

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 breakthrough time must be obtained from the protective

glove manufacturer and must be observed.

• Eye/face protection Not required.

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· **Body protection:** Protective work clothing.

#### **SECTION 9: Physical and chemical properties**

· 9.1 Information on basic physical and chemical properties

· General Information

Colour: Light yellow
 Smell: Characteristic
 Melting point/freezing point: Not determined

Boiling point or initial boiling point and

boiling range >200 °C (CAS: 25068-38-6 Propyl -2,2-diphenyl-

4,4'dipropyloxirane polymers and homologues

molecular weight < 700)

· Lower and upper explosion limit

 Lower:
 1.3 Vol % (CAS: 100-51-6 Benzyl alcohol)

 • Upper:
 13 Vol % (CAS: 100-51-6 Benzyl alcohol)

· Flash point: 101 °C

Auto-ignition temperature: 184 °C (CAS: 25068-38-6 Propyl -2,2-diphenyl-

4,4'dipropyloxirane polymers and homologues

molecular weight < 700)

PH Not determined.

Viscosity:

• Kinematic viscosity at 20 °C 138 s (DIN 53211/4) dynamic: Not determined.

· Solubility

· Water: Not miscible or difficult to mix

• Steam pressure at 20 °C: 0.1 hPa (CAS: 100-51-6 Benzyl alcohol)

· Vapour pressure at 50 °C: 0.7 hPa

Density and/or relative density

Density at 20 °C 1.14 g/cm<sup>3</sup>

· 9.2 Other information

· Appearance:

Form: Fluid

· Important information on protection of health

and environment, and on safety.

• Self-inflammability: Product is not selfigniting. • Explosive properties: Product is not explosive.

· Information with regard to physical hazard

classes

· Explosives
· Flammable gases
· Aerosols
· Oxidising gases
· Cases under pressure
· Flammable liquids
· Flammable solids
· Void

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· 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 Based on available data, the classification criteria are not met.

Acute toxicity		based on available data, the classification chiena are not met.	
· LD/LC50 values that are relevant for classification:			
CAS: 1675-54-3 epoxide derivates			
Dermal	LD50	23000 mg/kg (rabbit)	
CAS: 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)	
CAS: 68609-97-2 Oxirane, mono[(C12-14-alkyloxy)methyl] derivatives			
Oral	LD50	17100 mg/kg (rat)	

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List II

CAS: 9003-36-5 Reaction mass of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane and 2-({2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy}methyl)oxirane and 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]dioxirane

 Oral
 LD50
 >2000 mg/kg (rat)

 Dermal
 LD50
 >2000 mg/kg (rabbit)

· Skin corrosion/irritation Causes skin irritation.

· Serious eye damage/irritation Causes serious eye irritation.

· Respiratory or skin

**sensitisation** May cause an allergic skin reaction.

Germ cell mutagenicity
 Carcinogenicity
 Reproductive toxicity
 STOT-single exposure
 STOT-repeated exposure
 Aspiration hazard
 Based on available data, the classification criteria are not met.
 Based on available data, the classification criteria are not met.
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 Based on available data, the classification criteria are not met.

11.2 Information on other hazards

· Endocrine disrupting properties

CAS: 128-37-0 2,6-Di-tert-butyl-p-cresol

#### **SECTION 12: Ecological information**

· 12.1 Toxicity

· = · · · · · · · · · · ·		
· Aquatic toxicity:		
CAS: 1675-54-3 epoxide derivates		
IC50	>42.6 mg/l (Bak)	
LC50/96h	2 mg/l (Oncorhynchus mykiss)	
EC50/48h	EC50/48h 1.8 mg/l (Daphnia magna)	
ErC50/72h	ErC50/72h 11 mg/l (Selenastrum capricornutum)	
CAS: 100-5	1-6 Benzyl alcohol	
IC50/72h	700 mg/l (algae)	
LC50/96h	460 mg/l (Pimephales promelas)	
	10 mg/l (Lepomis macrochirus)	
CAS: 68609	9-97-2 Oxirane, mono[(C12-14-alkyloxy)methyl] derivatives	
EbC50/72h	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)	
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CAS: 9003-36-5 Reaction mass of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane and 2-({2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy}methyl)oxirane and 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]dioxirane

LC50/96h >100 mg/l (Daphnia magna) EC50/96h >100 mg/l (Leucidus idus)

· 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.

· 12.5 Results of PBT and vPvB assessment · PBT: Not applicable. · vPvB: Not applicable.

· 12.6 Endocrine disrupting

properties For information on endocrine disrupting properties see section 11.

12.7 Other adverse effects

· 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.

#### 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.

· 14.1 UN number or ID number	
· ADR, IMDG, IATA	UN3082
· 14.2 UN proper shipping name	
· ADR, IATA	ENVIRONMENTALLY HAZARDOU
•	SUBSTANCE, LIQUID, N.O.S. (epoxide derivate
	Oxirane, mono[(C12-14-alkyloxy)methy
	derivatives)
·IMDG	ENVIRÓNMENTALLY HAZARDOU
	SUBSTANCE, LIQUID, N.O.S. (epoxide derivate
	Oxirane, mono[(C12-14-alkyloxy)methy
	derivatives), MARINE POLLUTANT

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14.3 Transport hazard class(es)	
ADR	
Class	<ol><li>9 (M6) Miscellaneous dangerous substances an articles.</li></ol>
Label	9
IMDG, IATA	
Class	9 Miscellaneous dangerous substances an articles.
Label	9
14.4 Packing group ADR, IMDG, IATA	III
14.5 Environmental hazards:	
Marine pollutant:	Yes
•	Symbol (fish and tree)
Special marking (ADR):	Symbol (fish and tree)
Special marking (IATA):	Symbol (fish and tree)
14.6 Special precautions for user	Warning: Miscellaneous dangerous substances ar articles.
Kemler Number:	90
EMS Number:	F-A,S-F
Stowage Category	A
14.7 Maritime transport in bulk accordin IMO instruments	ng to 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: 100
	ml
Transport category	3
Tunnel restriction code	(-)
Remarks:	1 kg Gebinde:Begrenzte Mengen
IMDG	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 100
	ml
	ml



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UN "Model Regulation":

UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXIDE DERIVATES, OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL] DERIVATIVES), 9, III

## SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Poisons Act
- Regulated explosives precursors

None of the ingredients is listed.

Regulated poisons

None of the ingredients is listed.

Reportable explosives precursors

None of the ingredients is listed.

Reportable poisons

None of the ingredients is listed.

- · Directive 2012/18/EU
- · Qualifying quantity (tonnes) for the application of lower-

tier requirements

Qualifying quantity (tonnes) for the application of uppertier requirements

· 15.2 Chemical safety

500 t

200 t

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

#### **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.

· Relevant phrases H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.

EUH205 Contains epoxy constituents. May produce an allergic

reaction.

· Department issuing data

specification sheet: Environment protection department.

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· 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 Irrit. 2: Skin corrosion/irritation - Category 2

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

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.