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

Printing date 09.03.2024 Version number 24 (replaces version 23) Revision: 09.03.2024

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

· 1.1 Product identifier

• Trade name <u>MC-Estrifan UP - Kompo</u>nente B

· Article number: 1453

· 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 coating 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.: +1 872 5888271 (MCR)

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. 1B 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 GB CLP regulation.

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· Hazard pictograms



· Signal word Danger

· Hazard-determining

components of labelling: Benzyl alcohol

Isophorone diamine Tetraethylenepentamine polymer amine terminated

· 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 Mixtures

• **Description:** Binding agent with colouring agents.

Mixture consisting of the following components.

Dangerous components:		
CAS: 100-51-6	Benzyl alcohol	30-60%
	Acute Tox. 4, H302; Acute Tox. 4, H332; Eye Irrit. 2, H319	
CAS: 2855-13-2	Isophorone diamine	≥10-<25%
EINECS: 220-666-8 Reg.nr.: 01-2119514687-32	Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; Aquatic Chronic 3, H412	
EC number: 949-140-2	polymer amine terminated	10-30%
	Eye Dam. 1, H318; Skin Irrit. 2, H315; Skin Sens. 1B, H317	

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		(Co	ontd. of page 2)
	CAS: 90640-66-7	Tetraethylenepentamine	≥10-<25%
	EINECS: 292-587-7 Reg.nr.: 01-2119487290-37	Skin Corr. 1B, H314; Aquatic Chronic 2, H411; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317	
	CAS: 15520-10-2	2-methylpentane-1,5-diamine	≥1-<5%
	EINECS: 239-556-6	Skin Corr. 1A, H314; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; STOT SE 3, H335	
	CAS: 64-17-5	Ethanol (ethyl alcohol) Flam. Liq. 2, H225; Eye Irrit. 2, H319	<1.5%
	CAS: 69-72-7	salicylic acid	<1%
	EINECS: 200-712-3	Repr. 2, H361d; Eye Dam. 1, H318; Acute Tox. 4, H302	
_	· Additional information	For the wording of the listed hazard phrases refer to se	ction 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures

After inhalation
 After skin contact
 After eye contact
 Supply fresh air and call for doctor for safety reasons.
 Instantly wash with water and soap and rinse thoroughly.
 Rinse opened eye for several minutes under running water.

Seek medical treatment.

· After swallowing Rinse out mouth and then drink plenty of water.

Instantly call for doctor.

4.2 Most important symptoms and effects, both acute and delayed

Danger of gastric perforation.

SECTION 5: Firefighting measures

5.1 Extinguishing media

· Suitable extinguishing agents CO2, 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) Nitrogen oxides (NOx)

(Traces)

· 5.3 Advice for firefighters

· Protective equipment: Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

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· 6.2 Environmental

precautions: Do not allow to enter drainage system, surface or ground water.

Inform respective authorities in case product reaches water or

sewage system.

· 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.

· 6.4 Reference to other

sections

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: Protect from heat and direct sunlight.

Keep container tightly sealed.

Storage class 8A

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

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

CAS: 64-17-5 Ethanol (ethyl alcohol)

WEL Long-term value: 1920 mg/m³, 1000 ppm

· DNELs

CAS: 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)

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		110 mg/m³ (Ark)		
CAS: 2	2855-13-2	Isophorone diamine		
Oral	DNEL	0.526 mg/kg bw/Tag (ArL)		
Inhalat	ive DNEL	20.1 mg/m³ (ArL)		
CAS: 1	15520-10-2	2 2-methylpentane-1,5-diamine		
Derma	I DNEL	1.5 mg/kg bw/day (ArL)		
Inhalat	ive DNEL	0.25 mg/m³ (ArL)		
		0.5 mg/m³ (Ark)		
PNEC	5			
CAS: 1	100-51-6 B	Benzyl alcohol		
PNEC	0.527 mg	/I (Marine water sediment)		
	0.1 mg/l (Mew)		
	1 mg/l (Fr	resh water sediment)		
PNEC	0.456 mg/kg dwt (Bod)			
5.27 mg/kg dwt (Fresh water sediment)				
CAS: 2	2855-13-2	Isophorone diamine		
PNEC	0.006 mg	// (Mew)		
	0.06 mg/l (Freshwater)			
PNEC	0.578 mg/kg dwt (Sediment)			
	5.784 mg	/kg dwt (Fresh water sediment)		
CAS: 1	5520-10-2	2 2-methylpentane-1,5-diamine		
PNEC	0.042 mg	/I (Mew)		
	0.42 mg/l	(Freshwater)		

· 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

Keep away from foodstuffs, beverages and food. hygienic measures

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. (Contd. on page 6)



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• 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 breakthrough time must be obtained from the protective

glove manufacturer and must be observed.

· Eye/face protection Not required.

· Body protection: Protective work clothing.

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Colour: Yellow

· Smell: Characteristic
· Melting point/freezing point: Not determined

· Boiling point or initial boiling point and

boiling range 205 °C

· Lower and upper explosion limit

Lower: 1.3 Vol %
 Upper: 13 Vol %
 Flash point: 101 °C
 Auto-ignition temperature: 380 °C

· Auto-ignition temperature: 380 °C · pH Not determined.

· Viscosity:

• Kinematic viscosity
• dynamic at 20 °C:

Not determined.
420 mPas

Solubility

• Water: Partly miscible
• Steam pressure at 20 °C: 0.1 hPa

Density and/or relative density

· Density at 20 °C 1 g/cm³

· 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. However, formation of

explosive air/steam mixtures is possible.

· Information with regard to physical hazard

classes

· Explosives Void

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· Flammable gases	Void	
Aerosols	Void	
· Oxidising gases	Void	
· Gases under pressure	Void	
Flammable liquids	Void	
Flammable solids	Void	
· 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 Harmful if swallowed.

· LD/LC50	· LD/LC50 values that are relevant for classification:		
CAS: 100	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)	

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CAS: 285	5-13-2 Isophorone	dian		ntd. of pag
Oral	LD50		1030 mg/kg (ATE)	
			1030 mg/kg (rat)	
	NOAEL		250 mg/kg (rat)	
Dermal	LD50		1840 mg/kg (rabbit)	
			>2000 mg/kg (rat)	
CAS: 155	20-10-2 2-methylpe	ntar	ne-1,5-diamine	
Oral	LD50		1170 mg/kg (rat)	
Dermal	LD50		1870 mg/kg (rabbit)	
Inhalative	LC50/4 h		19.6 mg/l (rat)	
CAS: 64-	17-5 Ethanol (ethyl	alco	hol)	
Oral	LD50		7060 mg/kg (rat)	
Dermal	LD50		>2000 mg/kg (rabbit)	
Inhalative	LC50/4 h		>20 mg/l (rat)	
CAS: 69-7	72-7 salicylic acid			
Oral	LD50		891 mg/kg (rat)	
Dermal	LD50		>2000 mg/kg (rat)	
Serious e Respirato	ory or skin	n C	auses severe skin burns and eye damage. auses serious eye damage.	
sensitisa	tion I mutagenicity		lay cause an allergic skin reaction. ased on available data, the classification criteria are no	ot mot
Carcinog			Based on available data, the classification criteria are not met.	
Reproductive toxicity			Based on available data, the classification criteria are not met.	
		В	ased on available data, the classification criteria are no	ot met.
	peated exposure		ased on available data, the classification criteria are no	
Aspiratio	n hazard mation on other ha		ased on available data, the classification criteria are no is	ot met.
		rtios		
	e disrupting proper	ues		
Endocrin	e disrupting propei 72-7 salicylic acid	ues		List II;

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:			
CAS: 100-	51-6 Benzyl alcohol		
IC50/72h	700 mg/l (algae)		
LC50/96h	460 mg/l (Pimephales promelas)		
	10 mg/l (Lepomis macrochirus)		
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CAS: 2855-	-13-2 Isophorone diamine			
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)			
CAS: 1552	0-10-2 2-methylpentane-1,5-diamine			
EC50/72h	>100 mg/l (algae)			
EC50	1825 mg/l (fish)			
EC50/48h	19.8 mg/l (Daphnia magna)			
CAS: 64-17	'-5 Ethanol (ethyl alcohol)			
EC50/24h	858 mg/l (Artemia salina)			
LC50/24h	11200 mg/l (Salmo gairdneri)			
LC50/96h	15300 mg/l (Pimephales promelas)			
EC50/4h	5800 mg/l (Paramaecium caudatum)			
LC50/48h	5012 mg/l (Ceriodaphnia dubia)			
EC50/48h	>10000 mg/l (Daphnia magna)			
EC50/3d	275 mg/l (Chlorella vulgaris)			
EC10/3d	11.5 mg/l (Chlorella vulgaris)			

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.

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· 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	UN2735
14.2 UN proper shipping name ADR, IMDG, IATA	AMINES, LIQUID, CORROSIVE, N.O (Isophorone diamine, Tetraethylenepentamine)
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:	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 (SGG18) Alkalis A SG35 Stow "separated from" SGG1-acids
14.7 Maritime transport in bulk accordance in bulk	ing to Not applicable.
Transport/Additional information:	
ADR Limited quantities (LQ) Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 m Maximum net quantity per outer packaging: 500 p
Transport category Tunnel restriction code Remarks:	2 E 1 kg Gebinde: Begrenzte Mengen



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· 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 2735 AMINES, LIQUID, CORROSIVE, N.O.S. UN "Model Regulation": (ISOPHORONE DIAMINE.

TETRAETHYLENEPENTAMINE), 8, II

SECTION 15: Regulatory information

· 15.1 Safety, health and environmental regulations/ legislation specific for the

substance or mixture

No further relevant information available.

· 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.

· 15.2 Chemical safety

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.

H225 Highly flammable liquid and vapour. · Relevant phrases

H302 Harmful if swallowed.

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.

H319 Causes serious eye irritation.

H332 Harmful if inhaled. H335 May cause respiratory irritation.

H361d Suspected of damaging the unborn child. H411 Toxic to aquatic life with long lasting effects.

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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 (UK REACH)

PNEC: Predicted No-Effect Concentration (ÚK REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Flam. Liq. 2: Flammable liquids - Category 2 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 Repr. 2: Reproductive toxicity - Category 2

STOT SE 3: Specific target organ toxicity (single exposure) - 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

· * Data compared to the previous version altered.

GB