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Safety Data Sheet according to P.U.(A) 310/2013

Printing date 12.07.2024 Version number 53 Revision: 12.07.2024

1 Identification of the hazardous chemical and of the supplier

· Product identifier

• Trade name <u>MC-DUR 1200 - Komponente A</u> • Recommended use of the chemical and restrictions on use

• Product category PC9a Coatings and paints, thinners, paint removers

· Application of the substance

/ the mixture Epoxy coating

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

2 Hazard identification

· Classification of the substance or mixture

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.
Skin Sens. 1 H317 May cause allergic skin reaction.

Carc. 2 H351 Suspected of causing cancer. Route of exposure: Inhalation.

Repr. 1B H360 May damage fertility or the unborn child.

STOT RE 1 H372 Causes damage to the lung through prolonged or repeated exposure.

Route of exposure: Inhalation.

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 GHS08 GHS09

· **Signal word** Danger

· Hazard-determining

components of labelling: epoxide derivates

Benzyl alcohol titanium dioxide

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Trade name MC-DUR 1200 - Komponente A

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crystalline silica maleic anhydride

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)

Alkyl Glycidyl Ether

· **Hazard statements** H315 Causes skin irritation.

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

H351 Suspected of causing cancer. Route of exposure: Inhalation.

H360 May damage fertility or the unborn child.

H372 Causes damage to the lung through prolonged or repeated

exposure. Route of exposure: Inhalation. H411 Toxic to aquatic life with long lasting effects.

· Precautionary statements

P260 Do not breathe dust/fume/gas/mist/ vapours/

spray.

P280 Wear protective gloves / eye protection / face

protection.

P281 Use personal protective equipment as required. P305+P351+P338 IF IN EYES: Rinse cautiously with water for

several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P362 Take off contaminated clothing and wash before

reuse.

P363 Wash contaminated clothing before reuse.

· Other hazards

· Results of PBT and vPvB assessment

PBT: Not applicable.vPvB: Not applicable.

3 Composition and information of the ingredients of the hazardous chemical

· Chemical characterisation: Mixtures

• **Description:** Resin mixture with colouring agents.

Mixture consisting of the following components.

Dangerous components:		
CAS: 1675-54-3	epoxide derivates Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	30-60%
CAS: 14808-60-7	crystalline silica STOT RE 1, H372	10-30%
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		(Contd. of page 2
CAS: 13463-67-7	titanium dioxide	≥1-<5%
	Carc. 2, H351	
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 Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Skin Sens. 1,	<i>≥</i> 2.5-<5%
CAS: 933999-84-9	H317	>2.5-<5%
C/10. 000000 07 0	oxirane (1:2) Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; Aquatic Chronic 3, H412	<u></u>
CAS: 100-51-6	Benzyl alcohol	<2.5%
OAS. 100-31-0	Acute Tox. 4, H302; Acute Tox. 4, H332; Eye Irrit. 2, H319	12.076
CAS: 68609-97-2	Alkyl Glycidyl Ether	≥1-<1.5%
	Repr. 1B, H360; Skin Irrit. 2, H315; Skin Sens. 1, H317	
CAS: 85711-46-2	Fatty acids, C14-18 and C16-18-unsatd., maleated	≥0.1-<0.5%
	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	
CAS: 108-31-6	maleic anhydride	≥0.001-<0.1%
	Resp. Sens. 1, H334; STOT RE 1, H372; Skin Corr. 1, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Skin Sens. 1, H317	
Additional inform	ation For the wording of the listed hazard phrases refer to	section 16.

4 First-aid measures

· Description of	of first aid	measures
------------------	--------------	----------

General information Remove contaminated clothing immediately. Consult a doctor if

symptoms occur. Move affected person to fresh air.

· After inhalation Supply fresh air; seek medical advice if symptoms occur.

If unconscious, place in recovery position and seek medical advice.

• After skin contact In case of contact with skin, wash carefully with plenty of soap and

water. Consult a doctor in case of skin reactions.

· After eye contact Rinse opened eye for several minutes under running water.

Call a doctor immediately

• After swallowing Rinse mouth with water. Never give anything by mouth to an

unconscious person. DO NOT induce vomiting. If symptoms

persist, consult a doctor.

· Information for doctor

· Most important symptoms and effects, both acute and

delayed

Advice for the doctor: Elementary aid, decontamination,

symptomatic treatment.

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5 Fire-fighting 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 Environmental precautions:Not required.
Prevent mate

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 Open and handle containers with care.

Ventilation measures are required in rooms without sufficient air

exchange (e.g. closed rooms),

because the occupational exposure limit values (see chapter 8)

could be exceeded. This must be avoided.

Wear suitable personal protective equipment (see section 8). Avoid contact with eyes, skin and clothing. Change contaminated or damaged gloves and contaminated clothing immediately and wash skin immediately. Mix slowly, partially covering the mixing container. Pour carefully and slowly when repotting. Observe the BGBau technical data sheet and practical guide for handling epoxy

resins.

Information about protection

against explosions and fires: Ensure sufficient air exchange and/or extraction in the working

areas. Take precautionary measures to avoid electrostatic

discharges.

· Conditions for safe storage, including any incompatibilities

· Storage

· Requirements to be met by

storerooms and containers: No special requirements.

· Further information about

storage conditions: None.

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· Storage class

6.1C

8 Exposure controls and personal protection

· Additional information about

design of technical systems: No further data; see section 7.

· Control parameters

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

CAS: 14808-60-7 crystalline silica

PEL (Malaysia) Long-term value: 0.1* mg/m³

*Pecahan ternafaskan

CAS: 108-31-6 maleic anhydride

PEL (Malaysia) Long-term value: 1.0 mg/m³, 0.25 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)

110 mg/m³ (Ark)

CAS: 68609-97-2 Alkyl Glycidyl Ether

Dermal DNEL 0.75 mg/kg bw/day (ArL)

Inhalative DNEL 0.49 mg/m³ (ArL)

· 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 Alkyl Glycidyl Ether

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.

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· Exposure controls

· Personal protective equipment

General protective and

hygienic measures Keep away from food, drink and animal feed.

Remove soiled, soaked clothing immediately.
Wash hands before breaks and at the end of work.

Avoid contact with 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.

• Protection of hands: Selection of the glove material on consideration of the penetration

times, rates of diffusion and the degradation

· Material of gloves You can find help with choosing gloves on the website https://

www.bgbau.de/fileadmin/Gisbau/Projekte.pdf

For example, we recommend the Sol-vex 37-900 protective gloves from Ansell GmbH. The breakthrough time of the protective gloves can be found under point 8 "Penetration time of the glove material". The selection of a suitable glove depends not only on the material, but also on other quality features and varies from manufacturer to

manufacturer. As the product

is a preparation of several substances, the resistance of glove materials cannot be calculated in advance and must therefore be

checked before use.

Nitrile rubber

Recommended material thickness:≥ 0.4 mm

Penetration time of glove

material

The breakthrough times of the Sol-vex 37-900 protective gloves

are around 8 hours.

The following applies to all other gloves:

The exact breakthrough time must be obtained from the protective

glove manufacturer and adhered to.

Nitrile rubber

Material thickness: ≥ 0.40 mm Penetration time: ≥ 480 min

Butyl rubber:

Material thickness: ≥ 0.5 mm Penetration time: ≥ 480 min

• Eye protection: Tight-fitting safety goggles.

Safety goggles.

Body protection: Protective clothing

Suitable protective clothing should be worn when working with epoxy resins. In addition to normal work clothing (long trousers, long-sleeved shirt or T-shirt), disposable overalls, aprons, overshoes, sleeve protectors etc. may be necessary depending on the activity. Uncovered areas of skin should be avoided as far as possible, even in hot weather. If the work involves kneeling, the (Contd. on page 7)



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lower leg area should be protected by protective trousers.

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form: Fluid

Colour: According to product specification

Smell: Characteristic

• **pH-value:**Not applicable.
Not determined.

· Change in condition

Melting point/freezing point Not determined

Initial boiling point and boiling range >200 °C

· Flash point: 151 °C

· Auto-ignition temperature 184 °C

· Auto-ignition temperature Product is not selfigniting.

• Explosive properties: Product is not explosive.

· Steam pressure at 20 °C: <0.1 hPa

Density at 20 °C 2.04 g/cm³

· Solubility in / Miscibility with

Water: Not miscible or difficult to mix

· Viscosity:

dynamic at 20 °C: 16800 mPas kinematic: Not determined.

· Other information

No further relevant information available.

10 Stability and reactivity

· Reactivity No further relevant information available.

· 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.

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· Hazardous decomposition

products: No dangerous decomposition products known

11 Toxicological information

LD/LC50 values that are relevant for classification:		
CAS: 1675-54-3 epoxide derivates		
Dermal	LD50	23000 mg/kg (rabbit)
CAS: 134	63-67-7 titanium dioxid	e
Oral	LD50	>5000 mg/kg (rat)
Dermal	LD50	>10000 mg/kg (rabbit)
Inhalative	LC50/4 h	>6.8 mg/l (rat)
CAS: 900	3-36-5 Reaction mass o	of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane
		iran-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)
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 Alkyl Glycidyl Ether		
CAS: 686	· · · · - · · · · · · · · · · · · · · ·	
CAS: 686 Oral	LD50	17100 mg/kg (rat)
Oral		· ·
Oral	LD50	· ·
Oral CAS: 108	LD50 - 31-6 maleic anhydride	

Primary irritant effect:

Skin corrosion or irritation

· Serious eye damage or eye

irritation

No irritant effect.

· Respiratory / skin sensitization

No sensitizing effect known.

· 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 for skin and mucous membranes.

Irritant

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· CMR effects (carcinogenity, mutagenicity and toxicity for

reproduction) Carc. 2, Repr. 1B

12 Ecological information

· Toxicity

NOEC

Oxicity			
· Aquatic toxicity:			
CAS: 1675-	CAS: 1675-54-3 epoxide derivates		
IC50	>42.6 mg/l (Bak)		
LC50/96h	2 mg/l (Oncorhynchus mykiss)		
EC50/48h	1.8 mg/l (Daphnia magna)		
ErC50/72h	11 mg/l (Selenastrum capricornutum)		
CAS: 9003-	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)		
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	CAS: 68609-97-2 Alkyl Glycidyl Ether		
EbC50/72h	843 mg/l (Pseudokirchneriella subcapitata)		
LC50/96h	>5000 mg/l (Oncorhynchus mykiss)		
	1800 mg/l (Lepomis macrochirus)		
EC50	>100 mg/l (BEL)		

· Persistence and degradability No further relevant information available.

500 mg/l (Pseudokirchneriella subcapitata)

- · Behaviour in environmental systems:
- Bioaccumulative potential
 Mobility in soil
 No further relevant information available.
 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.

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13 Disposal information

· 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.

UN-Number ADR, IMDG, IATA	UN3082
UN proper shipping name	
ADR, IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE
IMDG	LIQUID, N.O.S. (epoxide derivates) ENVIRONMENTALLY HAZARDOUS SUBSTANCI
INDG	LIQUID, N.O.S. (epoxide derivates), MARIN POLLUTANT
Transport hazard class(es)	
ADR	
Class	9 (M6) Miscellaneous dangerous substances ar
1 - 1 - 1	articles.
Label	9
IMDG, IATA	
Class	9 Miscellaneous dangerous substances and articles
Label	9
Packing group	
ADR, IMDG, IATA	III
Environmental hazards:	
Marine pollutant:	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 ar articles.
Kemler Number:	90
EMS Number:	F-A,S-F
Stowage Category	A

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· 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 (-)

· IMDG

· 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

· UN "Model Regulation": UN 3082 ENVIRONMENTALLY HAZARDOUS

SUBSTANCE, LIQUID, N.O.S. (EPOXIDE

DERIVATES), 9, III

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture

	· EHS reference list	
ſ	CAS: 1675-54-3	epoxide derivates
Ī	CAS: 100-51-6	Benzyl alcohol
Ī	CAS: 68609-97-2	Alkyl Glycidyl Ether
Ī	CAS: 108-31-6	maleic anhydride

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.

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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)

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 - oral - Category 4 Skin Corr. 1: Skin corrosion or irritation – Category 1 Skin Irrit. 2: Skin corrosion or irritation – Category 2

Eye Dam. 1: Serious eye damage or eye irritation - Category 1 Eye Irrit. 2: Serious eye damage or eye irritation – Category 2

Resp. Sens. 1: Respiratory sensitization - Category 1

Skin Sens. 1: Skin sensitization - Category 1 Carc. 2: Carcinogenicity - Category 2

Repr. 1B: Reproductive toxicity - Category 1B

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1 Aquatic Chronic 2: Hazardous to the aquatic environment - chronic hazard -

Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - chronic hazard -

Category 3

* * Data compared to the previous version altered.