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Safety data sheet according to UK REACH

Printing date 03.05.2025 Version number 4 (replaces version 3) Revision: 03.05.2025

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

· 1.1 Product identifier

· Trade name MC-DUR 1680 - Komponente B

· 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

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:

number:

1.4 Emergency telephone

msds@mc-bauchemie.de

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

Flam. Liq. 3 H226 Flammable liquid and vapour.

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





GHS02 GHS07 GHS09

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· Signal word

Warning

· Hazard-determining

components of labelling:

4.4'-Methylenediphenyldialycidyl ether

phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-[(1-

methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane]

· Hazard statements

H226 Flammable liquid and vapour. 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

P210 Keep away from heat, hot surfaces, sparks,

open flames and other ignition sources. No

smoking.

P241

Use explosion-proof [electrical/ventilating/

lighting] equipment.

P261

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

P280

Wear protective gloves/protective clothing/eye

protection/face protection/hearing protection.

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.

· 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: Mixture consisting of the following components.

4,4'-Methylenediphenyldiglycidyl ether	60-80%
Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	
phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'- [(1-methylethylidene)bis(4,1-phenyleneoxymethylene)] bis[oxirane] Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	
Reaction mass of ethylbenzene and xylene	<10%
Ham. Liq. 3, H226; STOT RE 2, H373; ASp. Tox. 1, H304; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	
	Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317 phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'- [(1-methylethylidene)bis(4,1-phenyleneoxymethylene)] bis[oxirane] Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317 Reaction mass of ethylbenzene and xylene Flam. Liq. 3, H226; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin

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CAS: 107-98-2 EINECS: 203-539-1 Reg.nr.: 01-2119457435-35- xxxx	1-Methoxy-2-propanol Flam. Liq. 3, H226; STOT SE 3, H336	ntd. of page 2)
· Additional information	For the wording of the listed hazard phrases refer to sec	tion 16.

SECTION 4: First aid measures

· 4.1 Description 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.

· 4.2 Most important symptoms and effects, both acute and

delayed Advice for the doctor: Elementary aid, decontamination,

symptomatic treatment.

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

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

Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:

Prevent material from reaching sewage system, holes and cellars.

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· 6.3 Methods and material for

containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders,

universal binders, sawdust).

· 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

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.

· 7.2 Conditions for safe storage, including any incompatibilities

Storage

· Requirements to be met by

storerooms and containers: No special requirements.

· Further information about

storage conditions: Keep container tightly closed in a well-ventilated place.

· Storage class 3

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

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

CAS: 107-98-2 1-Methoxy-2-propanol

WEL Short-term value: 560 mg/m³, 150 ppm

Long-term value: 375 mg/m³, 100 ppm

Sk

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DNELs				
Reaction	Reaction mass of ethylbenzene and xylene			
Oral	DNEL	1.6 mg/kg bw/Tag (ArL)		
		mg/kg bw/Tag (Workers)		
Dermal	DNEL	180 mg/kg bw/day (ArL)		
Inhalative	e DNEL	211 mg/m³ (ArL)		
CAS: 10	CAS: 107-98-2 1-Methoxy-2-propanol			
Oral	DNEL	3.3 mg/kg bw/Tag (ArL)		
Dermal	DNEL	50.6 mg/kg bw/day (ArL)		
Inhalativ	e DNEL	369 mg/m³ (ArL)		

Type Value Unit CAS No. Designation of material %

Additional Occupational Exposure Limit Values for possible hazards during processing:

CAS: 1330-20-7 xylene

WEL Short-term value: 441 mg/m³, 100 ppm Long-term value: 220 mg/m³, 50 ppm

Sk; BMGV

CAS: 100-41-4 ethylbenzene

WEL Short-term value: 552 mg/m³, 125 ppm Long-term value: 441 mg/m³, 100 ppm

Sk

· Additional information: The lists that were valid during the compilation were used as basis.

· 8.2 Exposure controls

Appropriate engineering

No further data; see section 7. controls

· Individual protection measures, such as 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.

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

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 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, (Contd. on page 6)



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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 Tight-fitting safety goggles.

· Eye/face protection

Safety goggles. Protective clothing

· Body protection:

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

lower leg area should be protected by protective trousers.

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

137 °C boiling range 30 °C · Flash point: · Auto-ignition temperature: 184 °C

· pH

Not determined.

· Viscosity:

Kinematic viscosity at 20 °C 350 s (DIN 53211/4) · dynamic:

· Solubility

Not determined.

· Water:

Not miscible or difficult to mix

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· Steam pressure at 20 °C: 0.1 hPa

Density and/or relative density

Density at 20 °C 1.1 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

· Flammable gases Void

· Aerosols Void

· Oxidising gases Void

· Gases under pressure Void

Flammable liquids Flammable liquid and vapour.

Flammable solids
Self-reactive substances and mixtures
Pyrophoric liquids
Void
Pyrophoric solids
Void
Self-heating substances and mixtures
Substances and mixtures, which emit flammable gases in contact with water

Oxidising liquids
Oxidising solids
Organic peroxides
Corrosive to metals
Desensitised explosives

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
 10.5 Incompatible materials:
 No further relevant information available.

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· 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.

· LD/LC50	· LD/LC50 values that are relevant for classification:				
CAS: 167	CAS: 1675-54-3 4,4'-Methylenediphenyldiglycidyl ether				
Oral	LD50	11400 mg/kg (rat)			
Dermal	LD50	23000 mg/kg (rabbit)			
		>2000 mg/kg (rat)			
Reaction	Reaction mass of ethylbenzene and xylene				
Oral	LD50	3523-4000 mg/kg (rat)			
Dermal	LD50	1100 mg/kg (rabbit)			
Inhalative	LC50/4 h	11 mg/l (rat)			
CAS: 107	CAS: 107-98-2 1-Methoxy-2-propanol				
Oral	LD50	4016 mg/kg (rat)			
Dermal	LD50	13000 mg/kg (rabbit)			
Inhalative	LC50/4 h	54.6 mg/l (rat)			

Primary irritant effect:

· 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.
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· 11.2 Information on other hazards

· Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

CAS: 1675-54-3 4,4'-Methylenediphenyldiglycidyl ether

LC50/72h >11 mg/l (algae)

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IC50 >42.6 mg/l (Bak)

LC50/96h 2 mg/l (Oncorhynchus mykiss)

1.3 mg/l (fish)

EC50/48h | 2.1 mg/l (daphnia)

1.8 mg/l (Daphnia magna)

ErC50/72h 11 mg/l (Selenastrum capricornutum)

Reaction mass of ethylbenzene and xylene

EC50/72h 2.2 mg/l (Selenastrum capricornutum)

LC50/96h 2.6 mg/l (Oncorhynchus mykiss)

NOEC 16 mg/l (BEL)

CAS: 107-98-2 1-Methoxy-2-propanol

IC50 1000 mg/l (BEL)

LC50/96h 6812 mg/l (Leucidus idus) LC50/48h 23300 mg/l (Daphnia magna) EC50/48h 23300 mg/l (Daphnia magna)

· 12.2 Persistence and

degradability No further relevant information available.

12.3 Bioaccumulative

potential
 12.4 Mobility in soil
 No further relevant information available.
 No further relevant information available.

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

· 12.6 Endocrine disrupting

properties The product does not contain substances with endocrine disrupting

properties.

· 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: Dispose of packaging according to regulations on the disposal of

packagings.

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Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

1104000
UN1263
PAINT, ENVIRONMENTALLY HAZARDOUS
PAINT, MARINE POLLUTANT
PAINT
3 (F1) Flammable liquids.
3` ′
3 Flammable liquids.
3
III
Product contains environmentally hazardous
substances: Epoxide resin
Yes
Symbol (fish and tree)
Symbol (fish and tree)
Warning: Flammable liquids.
30
F-E, <u>S-E</u>
A
ng to
Not applicable.
5L
Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000
ml 3
D/E



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· 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

UN "Model Regulation": UN 1263 PAINT, 3, III, ENVIRONMENTALLY

HAZARDOUS

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 upper-

tier requirements

· 15.2 Chemical safety

500 t

200 t

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

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 H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

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

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H332 Harmful if inhaled.

H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness.

H373 May cause damage to organs through prolonged or repeated exposure.

H411 Toxic 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) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative Flam. Liq. 3: Flammable liquids – Category 3 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

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3 STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Asp. Tox. 1: Aspiration hazard - Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic

hazard - Category 2

* Data compared to the previous version altered.

GB