

Page 1/13

Safety data sheet according to UK REACH

Printing date 10.12.2024 Version number 40 (replaces version 39) Revision: 10.12.2024

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

· 1.1 Product identifier

· Trade name MC-DUR Zero VK - Komponente B

1.2 Relevant identified uses of the substance or mixture and uses advised against

Sector of Use SU22 Professional uses: Public domain (administration,

education, entertainment, services, craftsmen)

· Application of the substance

/ the mixture Epoxy binder

· 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

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.

Acute Tox. 4 H312 Harmful in contact with skin.

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.

· Hazard pictograms





GHS05 GHS0

(Contd. on page 2)



Page 2/13

Safety data sheet according to UK REACH

Revision: 10.12.2024 Printing date 10.12.2024 Version number 40 (replaces version 39)

Trade name MC-DUR Zero VK - Komponente B

(Contd. of page 1)

· Signal word

Danger

Hazard-determining

components of labelling:

decarboxylating cashew nut shell liquid Isophorone diamine

Tetraethylenepentamine

Polyamine adduct

· Hazard statements

H302 Harmful if swallowed. H312 Harmful in contact with skin.

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

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. Immediately call a POISON CENTER/doctor.

P310 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: Mixture consisting of the following components.

Dangerous components:		
CAS: 8007-24-7 EINECS: 232-355-4	decarboxylating cashew nut shell liquid Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4,	30-60%
2,1,1200. 201 000 7	H312; Skin Irrit. 2, H315; Skin Sens. 1, H317	
CAS: 2855-13-2	Isophorone diamine	≥10-<25%
EINECS: 220-666-8	Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4,	
Reg.nr.: 01-2119514687-32		
	Chronic 3, H412	
	Specific concentration limit: Skin Sens. 1A; H317: C ≥ 0.001 %	
	Polyamine adduct	10-30%
	Eye Dam. 1, H318; Skin Irrit. 2, H315	



Page 3/13

Safety data sheet according to UK REACH

Printing date 10.12.2024 Version number 40 (replaces version 39) Revision: 10.12.2024

Trade name MC-DUR Zero VK - Komponente B

	(Co	ontd. of page 2)
CAS: 9046-10-0	Polyoxypropylenediamine	≥5-<10%
Reg.nr.: 01-2119557899-12	Skin Corr. 1B, H314; Aquatic Chronic 3, H412	
CAS: 90640-66-7	Tetraethylenepentamine	≥5-<10%
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: 90-72-2	2,4,6-tris(dimethylaminomethyl)phenol	≥3-<5%
EINECS: 202-013-9	Skin Corr. 1C, H314; Eye Dam. 1, H318; Acute Tox. 4,	
Reg.nr.: 2119560597-27	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

• 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 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

Wear protective equipment. Keep unprotected persons away.

(Contd. on page 4)



Page 4/13

Safety data sheet according to UK REACH

Printing date 10.12.2024 Version number 40 (replaces version 39) Revision: 10.12.2024

Trade name MC-DUR Zero VK - Komponente B

(Contd. of page 3)

· 6.2 Environmental

precautions: Inform respective authorities in case product reaches water or

sewage system.

Dilute with much water.

· 6.3 Methods and material for

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

universal binders, sawdust). Use neutralising agent.

Dispose of contaminated material as waste according to item 13.

Ensure adequate ventilation.

· 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: Protect from heat and direct sunlight.

· Storage class 8/

GB



Page 5/13

Safety data sheet according to UK REACH

Revision: 10.12.2024 Printing date 10.12.2024 Version number 40 (replaces version 39)

Trade name MC-DUR Zero VK - Komponente B

(Contd. of page 4)

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.

		with critical values that have to be monitored at the workplace.
· DNELs	•	
CAS: 2	1855-13-2 I	Isophorone diamine
Oral	DNEL	0.526 mg/kg bw/Tag (ArL)
Inhalati	ive DNEL	20.1 mg/m³ (ArL)
CAS: 9	046-10-0	Polyoxypropylenediamine
Oral	DNEL	0.04 mg/kg bw/Tag (ArL)
Dermal	DNEL	2.5 mg/kg bw/day (ArL)
CAS: 9	0-72-2 2,4	,6-tris(dimethylaminomethyl)phenol
Inhalati	ive DNEL	0.31 mg/m³ (ArL)
PNECs	;	
CAS: 2	1855-13-2 I	Isophorone diamine
	0.006 mg/	·
	_	(Freshwater)
PNEC	_	/kg dwt (Sediment)
	_	/kg dwt (Fresh water sediment)
CAS: 9	046-10-0	Polyoxypropylenediamine
		Sewage Treatment Plant)
	0.015 mg/	/I (Fresh water)
PNEC	0.0176 mg	g/kg dwt (Bod)
	0.125 mg/	/kg dwt (Sediment)
	0.132 mg/	/kg dwt (Fresh water sediment)
CAS: 9	0-72-2 2,4	l,6-tris(dimethylaminomethyl)phenol
PNEC	0.2 mg/l (S	Sewage Treatment Plant)
	0.0084 mg	g/l (Mew)
	0.084 mg/	/I (Freshwater)

0.084 mg/l (Freshwater) · Additional information:

· 8.2 Exposure controls

The lists that were valid during the compilation were used as basis.

· 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 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.

(Contd. on page 6)



Page 6/13

Safety data sheet according to UK REACH

Printing date 10.12.2024 Version number 40 (replaces version 39) Revision: 10.12.2024

Trade name MC-DUR Zero VK - Komponente B

(Contd. of page 5)

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

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/face protection

Tight-fitting safety goggles. 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.

GB



Page 7/13

Safety data sheet according to UK REACH

Printing date 10.12.2024 Version number 40 (replaces version 39) Revision: 10.12.2024

Trade name MC-DUR Zero VK - Komponente B

(Contd. of page 6)

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

Physical state
Colour:
Smell:
Odour threshold:
Melting point/freezing point:

Fluid
Yellow
Amine-like
Not determined
Not determined

· Boiling point or initial boiling point and

boiling range 247 °C (CAS: 2855-13-2 3-aminomethyl-3,5,5-

trimethylcyclohexylamine)

· Flammability Not applicable.

· Lower and upper explosion limit

Lower: Not determined.
Upper: Not determined.
Flash point: >100 °C

· Auto-ignition temperature: 380 °C (CAS: 2855-13-2 3-aminomethyl-3,5,5-

trimethylcyclohexylamine)

· Decomposition temperature: Not determined.

· pH Mixture reacts violently with water.

Not determined.

· Viscosity:

Kinematic viscositydynamic at 20 °C:Not determined.1050 mPas

· Solubility

· Water: Partly miscible

· Partition coefficient n-octanol/water (log

value) Not determined.

Steam pressure at 20 °C: 0 hPa (CAS: 2855-13-2 3-aminomethyl-3,5,5-

trimethylcyclohexylamine)

· Density and/or relative density

Density at 20 °C
 Relative density
 Vapour density
 O.98 g/cm³
 Not determined.
 Not determined.

· 9.2 Other information

· Appearance:

· Form: Liquid

· Important information on protection of health

and environment, and on safety.

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

· Change in condition

· Evaporation rate Not determined.

· Information with regard to physical hazard

classes

· Explosives Void

(Contd. on page 8)



Page 8/13

Safety data sheet according to UK REACH

Printing date 10.12.2024 Version number 40 (replaces version 39) Revision: 10.12.2024

Trade name MC-DUR Zero VK - Komponente B

(Contd. of page 7)

· 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. Harmful in contact with skin.

· LD/LC50 values tha	t are relevant for	classification:
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CAS: 2	855-13-2	Isophorone diamine	е
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)
1840 mg/kg (rabbit)

(Contd. on page 9)



Page 9/13

Safety data sheet according to UK REACH

Printing date 10.12.2024 Version number 40 (replaces version 39) Revision: 10.12.2024

Trade name MC-DUR Zero VK - Komponente B

(Contd. of page 8)

CAS: 90	046-10-0	Polyoxypropylenediamine
Oral	LD50	2855 mg/kg (Rat)
		2885 mg/kg (rat)
Dermal	LD50	2980 mg/kg (Kan)
		2980 mg/kg (rabbit)
CAS: 90	0-72-2 2,	4,6-tris(dimethylaminomethyl)phenol
Oral	LD50	mg/kg (rat)
	NOAEL	15 mg/kg (rat)

Primary irritant effect:

· Skin corrosion/irritation Causes severe skin burns and eye damage.

· Serious eye damage/irritation Causes serious eye damage.

· Respiratory or skin

sensitisation May cause an allergic skin reaction.

· 11.2 Information on other hazards

· Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic to	<u>*</u>
CAS: 2855	-13-2 Isophorone diamine
LC50/96h	110 mg/l (fish)
	110 mg/l (Leucidus idus)
EC50	1120 mg/l (Pseudomonas putida)
EC50/48h	23 mg/l (daphnia)
	23 mg/l (Daphnia magna)
NOEC	1.5 mg/l (Desmodesmus subspicatus)
	3 mg/l (Daphnia magna)
ErC50/72h	>50 mg/l (Desmodesmus subspicatus)
	>50 mg/l (algae)
CAS: 9046	-10-0 Polyoxypropylenediamine
EC50/72h	15 mg/l (algae)
LC50/96h	>15 mg/l (fish)
EC50/48h	80 mg/l (daphnia)
CAS: 90-72	2-2 2,4,6-tris(dimethylaminomethyl)phenol
EC50/72h	84 mg/l (Desmodesmus subspicatus)
LC50/96h	175 mg/l (Cyp)
	718 mg/l (Daphnia magna)
NOEC	2 mg/l (BEL)
	(Contd. on page 10)

(Contd. on page 10)



Page 10/13

Safety data sheet according to UK REACH

Printing date 10.12.2024 Version number 40 (replaces version 39) Revision: 10.12.2024

Trade name MC-DUR Zero VK - Komponente B

(Contd. of page 9)

6.25 mg/l (Desmodesmus subspicatus)

· 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:
· vPvB:
Not applicable.
Not applicable.

12.6 Endocrine disrupting

properties The product does not contain substances with endocrine disrupting

properties.

· 12.7 Other adverse effects

· Remark: Harmful to fish

· Additional ecological information:

• General notes: Must not reach sewage water or drainage ditch undiluted or

unneutralised.

Harmful to aquatic organisms

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: Disposal must be made according to official regulations.

· Recommended cleaning

agent: Water, if necessary with cleaning agent.

SECTION 14: Transport information

· 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.S.

(Tetraethylenepentamine,

ISOPHORONEDIAMINE)

· 14.3 Transport hazard class(es)

· ADR

· Class 8 (C7) Corrosive substances.

(Contd. on page 11)





Safety data sheet according to UK REACH

Printing date 10.12.2024 Version number 40 (replaces version 39) Revision: 10.12.2024

Trade name MC-DUR Zero VK - Komponente B

	(Contd. of page
Label	8
IMDG, IATA	
Class	8 Corrosive substances.
Label	8
14.4 Packing group	
ADR, IMDG, IATA	II
14.5 Environmental hazards:	
Marine pollutant:	No
14.6 Special precautions for user	Warning: Corrosive substances.
Kemler Number:	80
EMS Number:	F-A,S-B
Segregation groups	(SGG18) Alkalis
Stowage Category	A
Segregation Code	SG35 Stow "separated from" SGG1-acids
14.7 Maritime transport in bulk accordi	ing to
IMO instruments	Not applicable.
Transport/Additional information:	
ADR	
Limited quantities (LQ)	1L
Excepted quantities (ÉQ)	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 m
Transport category	2
Tunnel restriction code	E
IMDG	
Limited quantities (LQ)	1L
Excepted quantities (ÉQ)	Code: E2
- · ·	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 n
UN "Model Regulation":	UN 2735 AMINES, LIQUID, CORROSIVE, N.O.
	(TETRAETHYLENEPENTAMINE
	ISOPHORONEDIAMINE), 8, II

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.

(Contd. on page 12)



Page 12/13

Safety data sheet according to UK REACH

Printing date 10.12.2024 Version number 40 (replaces version 39) Revision: 10.12.2024

Trade name MC-DUR Zero VK - Komponente B

(Contd. of page 11)

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

Named dangerous

substances - ANNEX I

· 15.2 Chemical safety

assessment:

None of the ingredients is listed.

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

· 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.

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

· 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 Corr. 1B: Skin corrosion/irritation – Category 1B Skin Corr. 1C: Skin corrosion/irritation – Category 1C

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

Eye Dam. 1: Serious eye damage/eye irritation - Category 1

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

(Contd. on page 13)



Page 13/13

Safety data sheet according to UK REACH

Printing date 10.12.2024

Version number 40 (replaces version 39)

Revision: 10.12.2024

Trade name MC-DUR Zero VK - Komponente B

(Contd. of page 12)

* * Data compared to the previous version altered.

GB