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

Printing date 10.12.2024 Version number 53 Revision: 10.12.2024

1 Identification of the hazardous chemical and of the supplier

· Product identifier

· Trade name Konudur Flexfit - Komponente B

Recommended use of the chemical and restrictions on

use

No further relevant information available.

· Application of the substance

/ the mixture

Polyurethane lacquer

Hardening agent/ Curing agent

· 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

Acute Tox. 4 H332 Harmful if inhaled.

Eye Dam. 1 H318 Causes serious eye damage.
Skin Sens. 1 H317 May cause allergic skin reaction.
STOT SE 3 H335 May cause respiratory irritation.

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

Route of exposure: Inhalation.

Aquatic Chronic 3 H412 Harmful 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







GHS05 GHS07 GHS08

· **Signal word** Danger

· Hazard-determining

components of labelling: aliphatic polyisocyanate 1

Aliphatisches Polyisocyanat

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[3-(2,3-epoxypropoxy)propyl]trimethoxysilane

crystalline silica

aliphatic polyisocyanate 2

Hexamethylendiisocyanat, Oligomerisationsprodukt (Uretdion Typ)

· Hazard statements H332 Harmful if inhaled.

> H318 Causes serious eye damage. H317 May cause allergic skin reaction. H335 May cause respiratory irritation.

H372 Causes damage to the lung through prolonged or repeated

exposure. Route of exposure: Inhalation.

H412 Harmful to aquatic life with long lasting effects.

· Precautionary statements P260 Do not breathe dust/fume/gas/mist/ vapours/

spray.

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

spray.

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).

P403+P233 Store in a well-ventilated place. Keep container

tightly closed.

· 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: Mixture consisting of the following components.

· Dangerous compo	nents:	
CAS: 14808-60-7	crystalline silica	10-30%
	STOT RE 1, H372	
CAS: 28182-81-2	Aliphatisches Polyisocyanat	≥20-≤30%
	Skin Sens. 1, H317; STOT SE 3, H335	
CAS: 164250-92-4	aliphatic polyisocyanate 1	≥10-<20%
	Aquatic Chronic 2, H411; Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335	
CAS: 29891-05-2	aliphatic polyisocyanate 2	≥2.5-<10%
	Aquatic Chronic 2, H411; Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335	
CAS: 28182-81-2	Hexamethylendiisocyanat, Oligomerisationsprodukt (Uretdion Typ)	≥1-<5%
	Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335	

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CAS: 2530-83-8	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	≥3-<5%
	Eye Dam. 1, H318	
CAS: 1809331-98-3	Aliphatisches Polyisocyanat 3	≥0.1-<0.5%
	Skin Sens. 1, H317; STOT SE 3, H335	
CAS: 2768-02-7	trimethoxyvinylsilane	≥0.1-<0.5%
	Flam. Liq. 3, H226; STOT RE 2, H373; Skin Sens. 1, H317	
CAS: 822-06-0	hexamethylene diisocyanate	≥0.1-<0.5%
	Acute Tox. 2, H330; Resp. Sens. 1, H334; Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	

• Additional information For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

· Description of first aid measures

General information Remove soiled, soaked clothing immediately.

· After inhalation Remove person to fresh air, keep warm, allow to rest; if breathing

is difficult, seek medical attention.

· 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 the eyes with open eyelids for a sufficiently long time (at

least 10 minutes) with water that is as lukewarm as possible.

Consult an ophthalmologist.

• After swallowing Do NOT induce vomiting. Rinse mouth with water. Medical

attention required.

Information for doctor

Most important symptoms and effects, both acute and

delayed

Advice for the doctor: Elementary aid, decontamination,

symptomatic treatment.

· Indication of any immediate medical attention and special

treatment needed Therapeutic measures: No information available.

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 Can be released in case of fire

Carbon monoxide (CO) Nitrogen oxides (NOx)

Under certain fire conditions, traces of other toxic gases cannot be

excluded, e.g.:

Hydrogen cyanide (HCN)

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· Advice for firefighters

• **Protective equipment:** Wear self-contained breathing apparatus.

6 Accidental release measures

Personal precautions, protective equipment and

emergency procedures Ensure adequate ventilation

Use breathing protection against the effects of fumes/dust/aerosol. Prevent material from reaching sewage system, holes and cellars.

· Environmental precautions: · 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.

Ensure adequate ventilation.

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 Ensure sufficient air exchange and/or extraction in the work areas.

Air extraction is required for spray application.

For solid products: Avoid dust formation and dust deposits. Air limit values mentioned in section 8 must be monitored.

At workplaces where isocyanate aerosols and/or vapours can occur in higher concentrations, targeted air extraction must be used to prevent the occupational hygiene limit value from being

exceeded. The air must be moved away from people.

For products containing solvents: Explosion protection required. The personal protective measures described in section 8 must be observed. The protective measures required when handling isocyanates must be observed. Avoid contact with skin and eyes and inhalation of vapours.

Keep away from food and beverages. Wash hands before breaks and at the end of work and apply skin protection ointment. Store work clothes separately. Remove soiled, soaked clothing immediately.

Information about protection

against explosions and fires: Keep ignition sources away - do not smoke.

Protect from heat.

Do not store near heat sources.

· Conditions for safe storage,

including any incompatibilities

Keep container dry and tightly closed. Further information on the storage conditions that must be observed for quality assurance

reasons can be found in our technical data sheet.

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· Storage

· Requirements to be met by

storerooms and containers: Keep tightly closed in original packaging. Ventilate storage rooms

well. Carefully close opened containers and store upright to

prevent any leakage.

Storage temperature >5°C and <30°C

· Information about storage in

one common storage facility: May be stored together with hazardous substances of other

classes up to 200 kg.

· Further information about

storage conditions: Protect from heat and direct sunlight.

· Storage class 10

· Specific end use(s) No further relevant information available.

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	CAS: 14808-60-7 crystalline silica			
PEL (Malays	sia) Long-term value: 0.1* mg/m³			
	*Pecahan ternafaskan			
CAS: 822-06	CAS: 822-06-0 hexamethylene diisocyanate			
PEL (Malays	sia) Long-term value: 0.034 mg/m³, 0.005 ppm			
· DNELs	· DNELs			
CAS: 28182	-81-2 Aliphatisches Polyisocyanat			
Inhalative D	NEL 0.5 mg/m³ (Workers) (long term local)			
	1 mg/m³ (kei) (acute local eff)			
CAS: 28182	-81-2 Hexamethylendiisocyanat, Oligomerisationsprodukt (Uretdion Typ)			
Inhalative D	NEL 0.5 mg/m³ (Workers) (long term local)			
	1 mg/m³ (kei) (acute local eff)			
	6-0 hexamethylene diisocyanate			
Inhalative D	NEL 0.5 mg/m³ (ArL)			
·PNECs				
0.1.0 00.100				

CAS: 28182-81-2 Aliphatisches Polyisocyanat

PNEC aqua | 12.7 μg/l (Daphnia magna) (marine)

PNEC 38.28 mg/l (kei) (STP)

CAS: 28182-81-2 Hexamethylendiisocyanat, Oligomerisationsprodukt (Uretdion Typ)

PNEC aqua 12.7 μg/l (Daphnia magna) (marine)

PNEC 38.28 mg/l (kei) (STP)

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CAS: 822-06-0 hexamethylene diisocyanate		
PNEC	100 mg/l (Sewage Treatment Plant)	
	0.0199 mg/l (Mew)	
	0.199 mg/l (Freshwater)	
PNEC	8884 mg/kg dwt (Bod)	
	4455 mg/kg dwt (Marine water sediment)	
	44551 mg/kg dwt (Fresh water sediment)	

· Additional information:

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

- · Exposure controls
- · Personal protective equipment
- General protective and

hygienic measures

Do not smoke, eat or drink while working. Have eye wash

equipment ready.

Do not inhale gases/vapours/aerosols. Avoid contact with eyes and

skin.

Do not store food in the work area. Wash hands before breaks and

at the end of work.

Breathing equipment: Respiratory protection required at insufficiently ventilated

> workplaces and when working with splashes. Fresh air masks or combination filters A2-P2 (EN529) are recommended for short-

term work.

If applicable, further recommendations for respiratory protection

can be found in the appendix.

In case of hypersensitivity of the respiratory tract (asthma, chronic

bronchitis), handling of the product is not recommended.

An nicht ausreichend entlüfteten Arbeitsplätzen und bei Spritzverarbeitung Atemschutz erforderlich. Empfohlen werden Frischluftmaske oder für kurzzeitige Arbeiten Kombinationsfilter

A2-P2.

Bei Überempfindlichkeit der Atemwege und der Haut (Asthma, chronische Bronchitis, chronische Hautleiden) wird der Umgang

mit dem Produkt abgeraten.

· Protection of hands: Suitable materials for protective gloves; EN 374:

Butyl rubber - IIR: thickness ≥0.5mm; breakthrough time ≥480min. Fluororubber - FKM: thickness ≥0.4mm; breakthrough time

≥480min.

Multi-layer glove - PE/EVAL/PE; Breakthrough time >480 min.

Recommendation: Dispose of contaminated gloves.

Bedingt geeignete Materialien für Schutzhandschuhe; EN 374-3:

Nitrilkautschuk - NBR: Dicke ≥0,35mm

Nur als Spritzschutz geeignet. Nur bei kurzzeitiger Einwirkung geeignet. Bei Kontamination sind die Schutzhandschuhe sofort zu

wechseln.

· 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.

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· Penetration time of glove (Contd. of page 6)

material Butyl rubber - IIR: thickness ≥0.5mm; breakthrough time ≥480min.

Fluoro rubber - FKM: thickness ≥0.4mm; breakthrough time

≥480min.

Multi-layer glove - PE/EVAL/PE ; Breakthrough time ≥480 min.

• Eye protection: Wear safety goggles/face protection.

Body protection: Wear suitable protective clothing when working.

In case of hypersensitivity of the skin, handling of the product is not

recommended.

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form: Fluid
Colour: Dark brown
Smell: Characteristic

pH-value: Not determined.

· Change in condition

Melting point/freezing point Not determined Initial boiling point and boiling range 2230 °C

· Flash point: 158 °C
· Auto-ignition temperature 400 °C

· Auto-ignition temperature Product is not selfigniting.

• Explosive properties: Product is not explosive.

Steam pressure at 1732 °C: 13.5 hPa

· Density Not determined

· Solubility in / Miscibility with Water:

Water: Hydrolized

· Viscosity:

dynamic:Not determined.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.

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· Possibility of hazardous

reactions

Reacts with amines

· Conditions to avoid · Incompatible materials:

No further relevant information available. No further relevant information available.

Hazardous decomposition

products:

No dangerous decomposition products known

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity

LD/LC50	values tha	t are relevant for classification:
CAS: 281	82-81-2 AI	iphatisches Polyisocyanat
Oral	LD50	>2500 mg/kg (rat) (OECD 423)
Dermal	LD50	>2000 mg/kg (rat) (OECD 402)
CAS: 164	250-92-4 a	liphatic polyisocyanate 1
Oral	LD50	>5000 mg/kg (rat)
CAS: 298	91-05-2 al	iphatic polyisocyanate 2
Oral	LD50	>5000 mg/kg (rat)
CAS: 281	82-81-2 He	examethylendiisocyanat, Oligomerisationsprodukt (Uretdion Typ)
Oral	LD50	>2500 mg/kg (rat) (OECD 423)
Dermal	LD50	>2000 mg/kg (rat) (OECD 402)
CAS: 253	0-83-8 [3-(2,3-epoxypropoxy)propyl]trimethoxysilane
Oral	LD50	8030 mg/kg (rat)
Dermal	LD50	4248 mg/kg (rabbit)
CAS: 276	8-02-7 trin	nethoxyvinylsilane
Oral	LD50	>5000 mg/kg (rat)
Dermal	LD50	>3400 mg/kg (rabbit)
Inhalative	LC50/4 h	2773 mg/l (rat)
CAS: 822	-06-0 hexa	nmethylene diisocyanate
Oral	LD50	738 mg/kg (rat)
Primary i	ritant offo	not:

· Primary irritant effect:

· Serious eye damage or eye

irritation

No irritant effect.

· Respiratory / skin

sensitization

Sensitization possible by skin contact.

· 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:

Harmful

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Irritant

12 Ecological information

· Toxicity

· Aquatic toxicity:

CAS: 28182-81-2 Aliphatisches Polyisocyanat

ErC10/72h 370 mg/l (Desmodesmus subspicatus) (EU C.3) ErC50/72h >1000 mg/l (Desmodesmus subspicatus) (EU C.3)

CAS: 28182-81-2 Hexamethylendiisocyanat, Oligomerisationsprodukt (Uretdion Typ)

ErC10/72h 370 mg/l (Desmodesmus subspicatus) (EU C.3) ErC50/72h >1000 mg/l (Desmodesmus subspicatus) (EU C.3)

CAS: 2530-83-8 [3-(2,3-epoxypropoxy)propyl]trimethoxysilane

LC50/96h | 55 mg/l (Cyp)

EC50/48h 473 mg/l (Daphnia magna)

ErC50/72h | 255 mg/l (Scenedesmus subspicatus)

CAS: 2768-02-7 trimethoxyvinylsilane

LC50/96h >100 mg/l (Danio rerio)

191 mg/l (Oncorhynchus mykiss)

EC50 >1000 mg/l (Bak)

EC50/48h | 168.7 mg/l (Daphnia magna)

· Persistence and degradability No further relevant information available.

· 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.

13 Disposal information

· 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:

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

Transportation information	
UN-Number ADR, IMDG, IATA	UN3082
UN proper shipping name ADR, IATA IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANG LIQUID, N.O.S. (aliphatic polyisocyanate 1) ENVIRONMENTALLY HAZARDOUS SUBSTANG LIQUID, N.O.S. (aliphatic polyisocyanate 1, alipha polyisocyanate 2), MARINE POLLUTANT
Transport hazard class(es)	
ADR Class	9 (M6) Miscellaneous dangerous substances a articles.
Label	9
IMDG, IATA Class Label	9 Miscellaneous dangerous substances and article 9
Packing group ADR, IMDG, IATA	III
Environmental hazards: Marine pollutant:	Yes Symbol (fish and tree)
Special marking (ADR): Special marking (IATA):	Symbol (fish and tree) Symbol (fish and tree)
Special precautions for user	Warning: Miscellaneous dangerous substances a articles.
Kemler Number: EMS Number: Stowage Category	90 F-A,S-F A
Transport in bulk according to Annex Marpol and the IBC Code	t II of Not applicable.
Transport/Additional information:	
ADR Limited quantities (LQ) Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 n

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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. (ALIPHATIC

POLYISOCYANATE 1), 9, III

15 Regulatory information

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

· EHS reference list

CAS: 822-06-0 hexamethylene diisocyanate

· Directive 2012/18/EU

· Named dangerous

substances - ANNEX I None of the ingredients is listed.

· 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.

· 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 Flam. Liq. 3: Flammable liquids – Category 3

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Acute Tox. 2: Acute toxicity - oral — Category 2 Acute Tox. 4: Acute toxicity - oral — Category 4 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

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3 STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1 STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Aquatic Chronic 2: Hazardous to the aquatic environment - chronic hazard —

Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - chronic hazard –
Category 3

MY

^{*} Data compared to the previous version altered.