



BE SURE. BUILD SURE.

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Safety data sheet according to 1907/2006/EC, Article 31

Printing date 30.11.2021

Version number 16

Revision: 30.11.2021

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

- **Product identifier**
- **Trade name** Konudur Flexfit - Komponente B
- **Relevant identified uses of the substance or mixture and uses advised against** 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
- **Emergency telephone number:** Tel.: +49 / (0)700 24112112 (MCR)
Tel.: +48612864565

2 Hazards 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 an allergic skin reaction.
 - STOT SE 3 H335 May cause respiratory irritation.
 - Aquatic Acute 2 H401 Toxic to aquatic life.
 - 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
- **Signal word** Danger

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- **Hazard-determining components of labelling:** Aliphatisches Polyisocyanat
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane
Aliphatisches Polyisocyanat 1
Aliphatisches Polyisocyanat 2
Hexamethylendiisocyanat, Oligomerisationsprodukt (Uretidion Typ)
- **Hazard statements** Harmful if inhaled.
Causes serious eye damage.
May cause an allergic skin reaction.
May cause respiratory irritation.
Toxic to aquatic life.
Harmful to aquatic life with long lasting effects.
- **Precautionary statements** Avoid breathing dust/fume/gas/mist/vapours/spray.
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.
Specific treatment (see on this label).
Take off contaminated clothing and wash it before reuse.
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/information on ingredients

- **Chemical characterisation: Mixtures**
- **Description:** Mixture consisting of the following components.

· **Dangerous components:**

28182-81-2	Aliphatisches Polyisocyanat Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335; Acute Tox. 5, H303; Acute Tox. 5, H313	≥20-<25%
164250-92-4	Aliphatisches Polyisocyanat 1 Aquatic Chronic 2, H411; Acute Tox. 4, H332; Skin Sens. 1B, H317; STOT SE 3, H335; Aquatic Acute 2, H401	≥2.5-<20%
29891-05-2	Aliphatisches Polyisocyanat 2 Aquatic Chronic 2, H411; Acute Tox. 4, H332; Skin Sens. 1B, H317; STOT SE 3, H335; Aquatic Acute 2, H401	≥2.5-<10%
28182-81-2	Hexamethylendiisocyanat, Oligomerisationsprodukt (Uretidion Typ) Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335; Acute Tox. 5, H303; Acute Tox. 5, H313	≥1-<5%
2530-83-8	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane Eye Dam. 1, H318; Acute Tox. 5, H313	≥3-<5%

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	Hydrophobes Siliziumdioxid, synthetisch, amorph Acute Tox. 5, H313	(Contd. of page 2) <5%
1809331-98-3	Aliphatisches Polyisocyanat 3 Aquatic Acute 1, H400; Aquatic Chronic 2, H411; Acute Tox. 4, H332; Skin Sens. 1B, H317; STOT SE 3, H335	≥0.25-<0.5%
2768-02-7	trimethoxyvinylsilane Flam. Liq. 3, H226; Skin Sens. 1B, H317; Acute Tox. 5, H313; Acute Tox. 5, H333	≥0.1-<0.5%

· **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**

Instantly remove any clothing soiled by the product.

Take affected persons into the open air.

Seek medical treatment.

· **After inhalation**

Supply fresh air.

Call a doctor immediately.

· **After skin contact**

Instantly wash with water and soap and rinse thoroughly.

· **After eye contact**

Rinse opened eye for several minutes under running water.

Seek medical treatment.

· **After swallowing**

Call a doctor immediately.

· **Information for doctor**

· **Most important symptoms and effects, both acute and delayed**

No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5 Firefighting 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)

· **Advice for firefighters**

· **Protective equipment:**

Wear self-contained breathing apparatus.

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6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
 - Ensure adequate ventilation
 - Use breathing protection against the effects of fumes/dust/aerosol.
- **Environmental precautions:**
 - 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).
 - 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 good ventilation/exhaustion at the workplace.
 - Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
 - No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:**
 - Store only in the original container.
- **Information about storage in one common storage facility:**
 - Store away from foodstuffs.
- **Further information about storage conditions:**
 - Keep container tightly sealed.
- **Specific end use(s)**
 - No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:**
 - No further data; see item 7.
- **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.

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· **DNELs**

28182-81-2 Aliphatisches Polyisocyanat

Inhalative	DNEL	0.5 mg/m ³ (Workers) (long term local)
		1 mg/m ³ (kei) (acute local eff)

28182-81-2 Hexamethylendiisocyanat, Oligomerisationsprodukt (Uretidion Typ)

Inhalative	DNEL	0.5 mg/m ³ (Workers) (long term local)
		1 mg/m ³ (kei) (acute local eff)

· **PNECs**

28182-81-2 Aliphatisches Polyisocyanat

PNEC	12.7 µg/l (Daphnia magna) (marine)
PNEC	38.28 mg/l (kei) (STP)

28182-81-2 Hexamethylendiisocyanat, Oligomerisationsprodukt (Uretidion Typ)

PNEC	12.7 µg/l (Daphnia magna) (marine)
PNEC	38.28 mg/l (kei) (STP)

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

· **Exposure controls**

· **Personal protective equipment**

· **General protective and hygienic measures**

Keep away from foodstuffs, beverages and food.
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.
Do not eat, drink or smoke while working.

· **Breathing equipment:**

An nicht ausreichend entlüfteten Arbeitsplätzen und bei Spritzverarbeitung Atemschutz erforderlich. Empfohlen werden Frischluftmaske oder für kurzzeitige Arbeiten Kombinationsfilter A2-P2.

· **Protection of hands:**

Bei Überempfindlichkeit der Atemwege und der Haut (Asthma, chronische Bronchitis, chronische Hautleiden) wird der Umgang mit dem Produkt abgeraten.

Protective gloves.

Bedingt geeignete Materialien für Schutzhandschuhe; EN 374-3:

Nitrilkautschuk - NBR: Dicke $\geq 0,35$ mm

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

· **Material of gloves**

Nitrile rubber, NBR

· **Penetration time of glove material**

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

Breakthrough time: ≥ 480 min

· **Eye protection:**

Safety glasses

Tightly sealed safety glasses.

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· **Body protection:** Protective work clothing.

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9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Fluid
Colour:	Dark brown
Smell:	Characteristic

· **Change in condition**

Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	190 °C

Flash point:	>65 °C
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Ignition temperature:	400 °C
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Self-inflammability:	Product is not selfigniting.
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Explosive properties:	Product is not explosive.
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Density at 20 °C	1.51 g/cm ³
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Solubility in / Miscibility with Water:	Hydrolized
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Other information	No further relevant information available.
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10 Stability and reactivity

Reactivity	No further relevant information available.
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· **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**

No further relevant information available.

· **Incompatible materials:**

No further relevant information available.

· **Hazardous decomposition products:**

No dangerous decomposition products known

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11 Toxicological information

- Information on toxicological effects
- Acute toxicity

· LD/LC50 values that are relevant for classification:

28182-81-2 Aliphatisches Polyisocyanat

Oral	LD50	>2500 mg/kg (rat) (OECD 423)
Dermal	LD50	>2000 mg/kg (rat) (OECD 402)

164250-92-4 Aliphatisches Polyisocyanat 1

Oral	LD50	>5000 mg/kg (rat)
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29891-05-2 Aliphatisches Polyisocyanat 2

Oral	LD50	>5000 mg/kg (rat)
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28182-81-2 Hexamethylendiisocyanat, Oligomerisationsprodukt (Uretdion Typ)

Oral	LD50	>2500 mg/kg (rat) (OECD 423)
Dermal	LD50	>2000 mg/kg (rat) (OECD 402)

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

Oral	LD50	8030 mg/kg (rat)
Dermal	LD50	4248 mg/kg (rabbit)

Hydrophobes Siliziumdioxid, synthetisch, amorph

Oral	LD50	>5000 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rabbit)

2768-02-7 trimethoxyvinylsilane

Oral	LD50	>5000 mg/kg (rat)
Dermal	LD50	>3400 mg/kg (rabbit)
Inhalative	LC50/4 h	2773 mg/l (rat)

- Primary irritant effect:
- Serious eye damage/irritation No irritant effect.
- Respiratory or skin sensitisation 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
Irritant

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12 Ecological information

· **Toxicity**

· **Aquatic toxicity:**

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)

28182-81-2 Hexamethylendiisocyanat, Oligomerisationsprodukt (Uretidion Typ)

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

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)

Hydrophobes Siliziumdioxid, synthetisch, amorph

Sensitisation	EL50	10000 mg/l (Daphnien)
	LC50/96h	>10000 mg/l (Brachydanio rerio)

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** No further relevant information available.

· **Mobility in soil** 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 considerations

· **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 Transport information

· **UN-Number**

· **ADR, IMDG, IATA**

UN3082

· **UN proper shipping name**

· **ADR, IATA**

· **IMDG**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S. (Aliphatisches Polyisocyanat 3)
ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S. (Aliphatisches Polyisocyanat 3,
Aliphatisches Polyisocyanat 1), MARINE
POLLUTANT

· **Transport hazard class(es)**

· **ADR**

· **Class**

· **Label**

9 (M6) Miscellaneous dangerous substances and
articles.
9

· **IMDG, IATA**

· **Class**

· **Label**

9 Miscellaneous dangerous substances and articles.
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 and
articles.

· **Kemler Number:**

· **EMS Number:**

· **Stowage Category**

90
F-A, S-F
A

· **Transport in bulk according to Annex II of
Marpol and the IBC Code**

Not applicable.

· **Transport/Additional information:**

· **ADR**

· **Limited quantities (LQ)**

5L

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· 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. (ALIPHATISCHES POLYISOCYANAT 3), 9, III

15 Regulatory information

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

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Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 5: Acute toxicity – Category 5

Acute Tox. 4: Acute toxicity – Category 4

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

Skin Sens. 1: Skin sensitisation – Category 1

Skin Sens. 1B: Skin sensitisation – Category 1B

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

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Acute 2: Hazardous to the aquatic environment - acute aquatic hazard – Category 2

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

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