



BE SURE. BUILD SURE.

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

Printing date 22.09.2023

Version number 34 (replaces version 33)

Revision: 22.09.2023

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

1.1 Product identifier

Trade name **ombran flex - Komponente B**

Article number: 3225

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

Polyurethane-sealant

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: msds@mc-bauchemie.de

1.4 Emergency telephone number:

Tel.: +49 / (0)700 24112112 (MCR)
Tel.: +48612864565

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Skin Irrit. 2 H315 Causes skin irritation.

Eye Dam. 1 H318 Causes serious eye damage.

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin Sens. 1 H317 May cause an allergic skin reaction.

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

Lact. H362 May cause harm to breast-fed children.

STOT SE 3 H335 May cause respiratory irritation.

STOT RE 2 H373 May cause damage to the lung through prolonged or repeated exposure.

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very 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.

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· Hazard pictograms



GHS05 GHS07 GHS08 GHS09

· Signal word

Danger

· Hazard-determining components of labelling:

diphenylmethanediisocyanate, isomeres and homologues
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane
diphenylmethane-4,4'-di-isocyanate
diphenylmethane-2,4'-diisocyanate

· Hazard statements

H315 Causes skin irritation.
H318 Causes serious eye damage.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer. Route of exposure: Inhalation.
H362 May cause harm to breast-fed children.
H335 May cause respiratory irritation.
H373 May cause damage to the lung through prolonged or repeated exposure.

· Precautionary statements

H410 Very toxic to aquatic life with long lasting effects.
P260 Do not breathe dusts or mists.
P263 Avoid contact during pregnancy and while nursing.
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).
P362+P364 Take off contaminated clothing and wash it before reuse.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

· Additional information:

Contains isocyanates. May produce an allergic reaction.
As from 24 August 2023 adequate training is required before industrial or professional use.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

· PBT:

85535-85-9 chloroalkanes (C=14-17)

· vPvB:

85535-85-9 chloroalkanes (C=14-17)

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SECTION 3: Composition/information on ingredients

· 3.2 Mixtures

· Description:

Mixture consisting of the following components.

· Dangerous components:

CAS: 85535-85-9	chloroalkanes (C=14-17) Aquatic Acute 1, H400 (M=100); Aquatic Chronic 1, H410 (M=10); Lact., H362, EUH066 PBT; vPvB	30-60%
CAS: 9016-87-9	diphenylmethanediisocyanate, isomeres and homologues Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335, EUH204 Specific concentration limits: Eye Irrit. 2; H319: C ≥ 5 % Skin Irrit. 2; H315: C ≥ 5 % Resp. Sens. 1; H334: C ≥ 0.1 % STOT SE 3; H335: C ≥ 5 %	30-60%
CAS: 2530-83-8 EINECS: 219-784-2	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane Eye Dam. 1, H318	≥3-<10%
CAS: 101-68-8 EINECS: 202-966-0 Reg.nr.: 01-2119457014-47	diphenylmethane-4,4'-di-isocyanate Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335, EUH204 Specific concentration limits: Eye Irrit. 2; H319: C ≥ 5 % Skin Irrit. 2; H315: C ≥ 5 % Resp. Sens. 1; H334: C ≥ 0.1 % STOT SE 3; H335: C ≥ 5 %	≥1-<1.5%
CAS: 5873-54-1 EINECS: 227-534-9	diphenylmethane-2,4'-diisocyanate Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335, EUH204 Specific concentration limits: Eye Irrit. 2; H319: C ≥ 5 % Skin Irrit. 2; H315: C ≥ 5 % Resp. Sens. 1; H334: C ≥ 0.1 % STOT SE 3; H335: C ≥ 5 %	≥0.1-<1%

· Additional information

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

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· General information

Instantly remove any clothing soiled by the product.

Take affected persons into the open air.

· After inhalation

Supply fresh air; consult doctor in case of symptoms.

· After skin contact

Instantly wash with water and soap and rinse thoroughly.

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- **After eye contact** Rinse opened eye for several minutes under running water.
Seek medical treatment.
- **After swallowing** Call a doctor immediately.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed** No further relevant information available.

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:** Put on breathing apparatus.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:** Prevent material from reaching sewage system, holes and cellars.
- **6.3 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.
- **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** Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.

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- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Storage class** 10
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

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

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

WEL	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as -NCO
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101-68-8 diphenylmethane-4,4'-di-isocyanate

WEL	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as -NCO
-----	---

5873-54-1 diphenylmethane-2,4'-diisocyanate

WEL	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as -NCO
-----	---

· **DNELs**

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

Inhalative	DNEL	0.05 mg/m ³ (ArL)
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101-68-8 diphenylmethane-4,4'-di-isocyanate

Dermal	DNEL	50 mg/kg bw/day (Ark)
Inhalative	DNEL	0.05 mg/m ³ (ArL)

5873-54-1 diphenylmethane-2,4'-diisocyanate

Inhalative	DNEL	0.05 mg/m ³ (ArL)
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· **PNECs**

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

PNEC	1 mg/l (Sewage Treatment Plant) 0.1 mg/l (Mew) 1 mg/l (Suw)
PNEC	1 mg/kg dwt (Bod)

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101-68-8 diphenylmethane-4,4'-di-isocyanate

PNEC	1 mg/l (Sewage Treatment Plant)
	0.1 mg/l (Mew)
	1 mg/l (Suw)
PNEC	1 mg/kg dwt (Bod)

5873-54-1 diphenylmethane-2,4'-diisocyanate

PNEC	1 mg/l (Sewage Treatment Plant)
	0.1 mg/l (Mew)
	1 mg/l (Suw)
PNEC	1 mg/kg dwt (Bod)

· Ingredients with biological limit values:

101-68-8 diphenylmethane-4,4'-di-isocyanate

BMGV	1 µmol creatinine/mol
	Medium: urine
	Sampling time: At the end of the period od exposure
	Parameter: isocyanate-derived diamine

5873-54-1 diphenylmethane-2,4'-diisocyanate

BMGV	1 µmol creatinine/mol
	Medium: urine
	Sampling time: At the end of the period od exposure
	Parameter: isocyanate-derived diamine

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

· **8.2 Exposure controls**

· **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 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.

· **Breathing equipment:**

Respiratory protection is required at inadequately ventilated workplaces and during spray processing. Fresh air masks or combination filters A2-P2 are recommended for short-term work.

· **Hand protection**

Conditionally suitable materials for protective gloves; EN 374-3:
Nitrile rubber - NBR: Thickness ≥ 0.35 mm.
Only suitable for splash protection. Only suitable for short-term exposure. In case of contamination, the protective gloves must be changed immediately.

· **Material of gloves**

Nitrile rubber, NBR

· **Penetration time of glove material**

The exact breakthrough time must be obtained from the protective glove manufacturer and must be observed.

· **Eye/face protection**

Safety glasses
Tightly sealed safety glasses.

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

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SECTION 9: Physical and chemical properties

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

· **General Information**

· Colour:	Black
· Smell:	Characteristic
· Melting point/freezing point:	Not determined Not applicable
· Boiling point or initial boiling point and boiling range	190 °C
· Flash point:	110 °C
· Auto-ignition temperature:	420 °C
· pH	Not determined.
· Viscosity:	
· Kinematic viscosity	Not determined.
· dynamic at 20 °C:	1276 mPas
· Solubility	
· Water:	Not miscible or difficult to mix
· Steam pressure:	Not determined.
· Density and/or relative density	
· Density at 20 °C	1.19 g/cm ³

· **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.

· **Information with regard to physical hazard classes**

· Explosives	Void
· 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

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· 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** Reacts with amines
- **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** Based on available data, the classification criteria are not met.

· **LD/LC50 values that are relevant for classification:**

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

Oral	LD50	>10000 mg/kg (Rat)
Dermal	LD50	>5000 mg/kg (Rab)
Inhalative	LC50/4 h	~450 mg/l (Rat)

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

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

101-68-8 diphenylmethane-4,4'-di-isocyanate

Oral	LD50	>10000 mg/kg (rat)
Dermal	LD50	>9400 mg/kg (rabbit)

- **Skin corrosion/irritation** Causes skin irritation.
- **Serious eye damage/irritation** Causes serious eye damage.
- **Respiratory or skin sensitisation** May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Suspected of causing cancer. Route of exposure: Inhalation.
- **Reproductive toxicity** May cause harm to breast-fed children.
- **STOT-single exposure** May cause respiratory irritation.

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- **STOT-repeated exposure** *May cause damage to the lung through prolonged or repeated exposure.*
- **Aspiration hazard** *Based on available data, the classification criteria are not met.*
- **11.2 Information on other hazards**

· **Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

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)

101-68-8 diphenylmethane-4,4'-di-isocyanate

EC50/24h	>1000 mg/l (Daphnia magna)
LC50/96h	>1000 mg/l (Brachydanio rerio)
NOEC	>1000 mg/l (Eisenia foetida)
	>10 mg/l (Daphnia magna)

- **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:**

85535-85-9	chloroalkanes (C=14-17)
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· **vPvB:**

85535-85-9	chloroalkanes (C=14-17)
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- **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.*

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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:** *Non contaminated packagings can be used for recycling.*

SECTION 14: Transport information

· **14.1 UN number or ID number**

· **ADR, ADN, IMDG, IATA** *Void*

· **14.2 UN proper shipping name**

· **ADR, ADN, IMDG, IATA** *Void*

· **14.3 Transport hazard class(es)**

· **ADR, ADN, IMDG, IATA**

· **Class** *Void*

· **14.4 Packing group**

· **ADR, IMDG, IATA** *Void*

· **14.5 Environmental hazards:**

· **Marine pollutant:** *No*

· **14.6 Special precautions for user**

Not applicable.

· **14.7 Maritime transport in bulk according to IMO instruments**

Not applicable.

· **UN "Model Regulation":**

Void

SECTION 15: Regulatory information

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

No further relevant information available.

· **15.2 Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

· **Relevant phrases**

*H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.*

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H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.
H362 May cause harm to breast-fed children.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
EUH066 Repeated exposure may cause skin dryness or cracking.
EUH204 Contains isocyanates. May produce an allergic reaction.

· **Department issuing data specification sheet:**

· **Abbreviations and acronyms:**

Environment protection department.

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 Irrit. 2: Skin corrosion/irritation – Category 2

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

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Resp. Sens. 1: Respiratory sensitisation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

Carc. 2: Carcinogenicity – Category 2

Lact.: Reproductive toxicity – effects on or via lactation

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

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

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

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

· *** Data compared to the previous version altered.**

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