



BE SURE. BUILD SURE.

Page 1/12

Safety data sheet according to Regulation (EC) No 1907/2006, Article 31

Printing date 09.12.2024

Version number 25 (replaces version 24)

Revision: 09.12.2024

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

1.1 Product identifier

Trade name **MC-DUR 2211 MB - 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

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: 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 H332 Harmful if inhaled.

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

2.2 Label elements

Labelling according to

Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation.

Hazard pictograms



GHS07 GHS08

Signal word

Danger

Hazard-determining components of labelling:

cyclohexanone
methyl-1,3-phenylene diisocyanate
p-toluenesulphonyl isocyanate

(Contd. on page 2)



BE SURE. BUILD SURE.

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 09.12.2024

Version number 25 (replaces version 24)

Revision: 09.12.2024

Trade name MC-DUR 2211 MB - Komponente B

(Contd. of page 1)

- **Hazard statements** H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- **Precautionary statements** P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P284 [In case of inadequate ventilation] wear respiratory protection.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER/doctor if you feel unwell.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Additional information:** 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:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

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

· **Dangerous components:**

CAS: 108-94-1 EINECS: 203-631-1 Reg.nr.: 01-2119453616-35	cyclohexanone Flam. Liq. 3, H226; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Eye Irrit. 2, H319	<2.5%
CAS: 4083-64-1	p-toluenesulphonyl isocyanate Resp. Sens. 1, H334; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	≥0.1-<1%
CAS: 26471-62-5	methyl-1,3-phenylene diisocyanate Acute Tox. 1, H330; Resp. Sens. 1, H334; Carc. 2, H351; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335; Aquatic Chronic 3, H412	≥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** Remove, decontaminate and dispose of soiled, soaked clothing and shoes 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, preferably wash with polyethylene glycol-based cleaner or clean with plenty of warm water and soap. Consult a doctor in case of skin reactions.

(Contd. on page 3)



BE SURE. BUILD SURE.

Page 3/12

Safety data sheet according to Regulation (EC) No 1907/2006, Article 31

Printing date 09.12.2024

Version number 25 (replaces version 24)

Revision: 09.12.2024

Trade name MC-DUR 2211 MB - Komponente B

(Contd. of page 2)

- **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.*
- **4.2 Most important symptoms and effects, both acute and delayed** *Information for the doctor: The product irritates the respiratory tract and is a potential trigger for skin and respiratory sensitisation. Treatment of acute irritation or bronchial constriction is primarily symptomatic. Depending on the extent of exposure and the symptoms, prolonged medical treatment may be necessary.*
- **4.3 Indication of any immediate medical attention and special treatment needed** *No information available.*

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:** *Put on breathing apparatus.*

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.*
- **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.*

(Contd. on page 4)



BE SURE. BUILD SURE.

Safety data sheet according to Regulation (EC) No 1907/2006, Article 31

Printing date 09.12.2024

Version number 25 (replaces version 24)

Revision: 09.12.2024

Trade name **MC-DUR 2211 MB - Komponente B**

(Contd. of page 3)

SECTION 7: Handling and storage

· **7.1 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.

· **7.2 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.

· **Storage**

· **Requirements to be met by storerooms and containers:**

Store only in the original container.

· **Further information about storage conditions:**

None.

· **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:**

CAS: 108-94-1 cyclohexanone

OEL (Ireland)

Short-term value: 81.6 mg/m³, 20 ppm
Long-term value: 40.8 mg/m³, 10 ppm
Skin, IOELV

IOELV (European Union)

Short-term value: 81.6 mg/m³, 20 ppm
Long-term value: 40.8 mg/m³, 10 ppm
Skin

(Contd. on page 5)



BE SURE. BUILD SURE.

Safety data sheet according to Regulation (EC) No 1907/2006, Article 31

Printing date 09.12.2024

Version number 25 (replaces version 24)

Revision: 09.12.2024

Trade name MC-DUR 2211 MB - Komponente B

(Contd. of page 4)

CAS: 4083-64-1 p-toluenesulphonyl isocyanate

OEEL (Ireland)	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ as -NCO; Sens.
----------------	---

CAS: 26471-62-5 methyl-1,3-phenylene diisocyanate

OEEL (Ireland)	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ as -NCO; Sens.
----------------	---

· DNELs

CAS: 26471-62-5 methyl-1,3-phenylene diisocyanate

Inhalative DNEL	0.035 mg/m ³ (ArL)
-----------------	-------------------------------

· PNECs

CAS: 26471-62-5 methyl-1,3-phenylene diisocyanate

PNEC	0.0125 mg/l (Fresh water)
	1 mg/l (Kla)
	0.00125 mg/l (Mew)
PNEC	1 mg/kg dwt (Bod)

· 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 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.

· 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.

· Hand protection

Suitable materials for protective gloves; EN 374:

Butyl rubber, nitrile rubber, chloroprene rubber (neoprene).

Note: suitable materials that provide sufficient protection for industrial cleaning with aprotic polar solvents (according to IUPAC definition): butyl rubber.

In case of prolonged or frequently repeated contact, a glove with a protection class of 5 or higher is recommended (breakthrough time greater than 240 minutes according to EN374). For short-term contact, a glove with a protection class of 3 or higher is recommended (breakthrough time greater than 60 minutes according to EN374).

(Contd. on page 6)



BE SURE. BUILD SURE.

Safety data sheet according to Regulation (EC) No 1907/2006, Article 31

Printing date 09.12.2024

Version number 25 (replaces version 24)

Revision: 09.12.2024

Trade name MC-DUR 2211 MB - Komponente B

(Contd. of page 5)

The thickness of the material is not the only criterion for the level of protection of a glove against a chemical substance. The protective effect also depends to a large extent on the type of glove material. Depending on the type and material, the thickness must be more than 0.35 mm to ensure adequate protection in the event of prolonged and frequent contact. Exceptions to this rule are multi-layer gloves, which guarantee sufficient protection even with a thickness of less than 0.35 mm during prolonged wear. Other glove materials with a thickness of less than 0.35 mm only provide sufficient protection for short periods of wear.

For solvent-free products:

Example:

Polychloroprene - CR: thickness $\geq 0.5\text{mm}$; breakthrough time $\geq 480\text{min}$.

Nitrile rubber - NBR: thickness $\geq 0.35\text{mm}$; breakthrough time $\geq 480\text{min}$.

Butyl rubber - IIR: thickness $\geq 0.5\text{mm}$; breakthrough time $\geq 480\text{min}$.

Fluoro rubber - FKM: thickness $\geq 0.4\text{mm}$; breakthrough time $\geq 480\text{min}$.

Recommendation: Dispose of contaminated gloves.

· **Material of gloves**

Polychloroprene - CR

Nitrile rubber - NBR

Butyl rubber - IIR

Fluoro rubber - FKM

· **Penetration time of glove material**

Polychloroprene - CR: thickness $\geq 0.5\text{mm}$; breakthrough time $\geq 480\text{min}$.

Nitrile rubber - NBR: thickness $\geq 0.35\text{mm}$; breakthrough time $\geq 480\text{min}$.

Butyl rubber - IIR: thickness $\geq 0.5\text{mm}$; breakthrough time $\geq 480\text{min}$.

Fluoro rubber - FKM: Thickness $\geq 0.4\text{mm}$; Breakthrough time $\geq 480\text{min}$.

· **Eye/face protection**

Safety goggles with side protection in accordance with EN 166.

· **Body protection:**

Use chemical-resistant protective clothing.

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

SECTION 9: Physical and chemical properties

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

· **General Information**

· **Colour:**

Colourless

· **Smell:**

Characteristic

· **Melting point/freezing point:**

Not determined

· **Boiling point or initial boiling point and boiling range**

Not determined

(Contd. on page 7)



BE SURE. BUILD SURE.

Safety data sheet according to Regulation (EC) No 1907/2006, Article 31

Printing date 09.12.2024

Version number 25 (replaces version 24)

Revision: 09.12.2024

Trade name MC-DUR 2211 MB - Komponente B

(Contd. of page 6)

· Lower and upper explosion limit	
· Lower:	Not determined.
· Upper:	Not determined.
· Flash point:	>100 °C
· pH	Not determined.
· Viscosity:	
· Kinematic viscosity	Not determined.
· dynamic at 20 °C:	4350 mPas
· Solubility	
· Water:	Not miscible or difficult to mix
· Steam pressure:	Not determined.
· Density and/or relative density	
· Density at 20 °C	1.07 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
· 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.
-------------------	--

(Contd. on page 8)



BE SURE. BUILD SURE.

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 09.12.2024

Version number 25 (replaces version 24)

Revision: 09.12.2024

Trade name MC-DUR 2211 MB - Komponente B

(Contd. of page 7)

- **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 inhaled.

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

CAS: 108-94-1 cyclohexanone

Oral LD50 1900 mg/kg (rat)

Dermal LD50 948 mg/kg (rabbit)

Inhalative LC50/4 h 8000 mg/l (rat)

CAS: 4083-64-1 p-toluenesulphonyl isocyanate

Oral LD50 2600 mg/kg (rat)

CAS: 26471-62-5 methyl-1,3-phenylene diisocyanate

Oral LD50 4130 mg/kg (rat)

Dermal LD50 >9400 mg/kg (rabbit)

Inhalative LC50/4 h 0.48 mg/l (rat) (OECD 403)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **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.

(Contd. on page 9)



BE SURE. BUILD SURE.

Safety data sheet according to Regulation (EC) No 1907/2006, Article 31

Printing date 09.12.2024

Version number 25 (replaces version 24)

Revision: 09.12.2024

Trade name MC-DUR 2211 MB - Komponente B

(Contd. of page 8)

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

CAS: 26471-62-5 methyl-1,3-phenylene diisocyanate

LC50/14d >1000 mg/kg (Eisenia foetida)

LC50/96h 133 mg/l (Oncorhynchus mykiss)

EC50 >100 mg/l (BEL)

EC50/48h 12.5 mg/l (Daphnia magna)

EC50/96h 4300 mg/l (Chlorella vulgaris)

3230 mg/l (Ske)

NOEC 1.1 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:

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:

Danger to drinking water if even extremely 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.

· European waste catalogue

08 00 00 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS

08 01 00 wastes from MFSU and removal of paint and varnish

08 01 11* waste paint and varnish containing organic solvents or other hazardous substances

(Contd. on page 10)



BE SURE. BUILD SURE.

Safety data sheet according to Regulation (EC) No 1907/2006, Article 31

Printing date 09.12.2024

Version number 25 (replaces version 24)

Revision: 09.12.2024

Trade name MC-DUR 2211 MB - Komponente B

(Contd. of page 9)

· **Uncleaned packagings:**

· **Recommendation:**

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

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.

· **REGULATION (EC) No 1907/2006 ANNEX XVII**

Conditions of restriction: 3, 74

· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

· **REGULATION (EU) 2019/1148**

· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

(Contd. on page 11)



BE SURE. BUILD SURE.

Safety data sheet according to Regulation (EC) No 1907/2006, Article 31

Printing date 09.12.2024

Version number 25 (replaces version 24)

Revision: 09.12.2024

Trade name MC-DUR 2211 MB - Komponente B

(Contd. of page 10)

· **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

· **15.2 Chemical safety 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.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
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.
H412 Harmful to aquatic life with long lasting effects.

· **Department issuing data specification sheet:**

Environment protection department.

· **Date of previous version:**

02.03.2024

· **Version number of previous version:**

24

· **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 (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

(Contd. on page 12)



BE SURE. BUILD SURE.

Page 12/12

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 09.12.2024

Version number 25 (replaces version 24)

Revision: 09.12.2024

Trade name MC-DUR 2211 MB - Komponente B

(Contd. of page 11)

Acute Tox. 4: Acute toxicity – Category 4

Acute Tox. 1: Acute toxicity – Category 1

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

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

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

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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

IE