

Safety data sheet according to UK REACH

Printing date 15.03.2025

Version number 24 (replaces version 23)

Revision: 15.03.2025

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

· **1.1 Product identifier**

· **Trade name** **MC-Injekt PowerSeal F**

· **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**

Polyurethane resin
Injektion

· **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**

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

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.

STOT SE 3 H335 May cause respiratory irritation.

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

· **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**



GHS07 GHS08

· **Signal word**

Danger

· **Hazard-determining components of labelling:**

Reaction mixture of 4,4'- methylene diphenyl diisocyanate and o-(pisocyanatobenzyl) phenyl isocyanate diphenylmethanediisocyanate, isomeres and homologues Benzene, 1,1'-methylenebis[4-isocyanato-, homopolymer

· **Hazard statements**

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.

· **Precautionary statements**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P284 [In case of inadequate ventilation] wear respiratory protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

· **Additional information:**

EUH204 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:** Not applicable.
· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**

· **Description:**

Resin mixture.
Mixture consisting of the following components.

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· Dangerous components:

EC number: 905-806-4 Reg.nr.: 01-2119457015-45-0001	Reaction mixture of 4,4'-methylene diphenyl diisocyanate and o-(pisocyanatobenzyl) phenyl 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. 1B, H317; STOT SE 3, H335	≥10-<20%
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%	≥5-<10%
	2,2-Dimorpholinodiethyl ether Eye Irrit. 2, H319	<5%
CAS: 25686-28-6 NLP: 500-040-3 Reg.nr.: 01-2119457013-49-0001	Benzene, 1,1'-methylenebis[4-isocyanato-, homopolymer 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	≥1-<2.5%

· 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.

· 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

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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** Use fire fighting measures that suit the environment.
- **5.2 Special hazards arising from the substance or mixture**
 - Can be released in case of fire
 - Carbon monoxide (CO)
 - Nitrogen oxides (NO_x)
 - Under certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:
 - Hydrogen cyanide (HCN)
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained breathing apparatus.
- **Additional information:** Cool endangered containers with water spray jet.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Collect contaminated fire fighting water separately. It must not enter drains.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
 - Ensure adequate ventilation
 - Use breathing protection against the effects of fumes/dust/aerosol.
- **6.2 Environmental precautions:** 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).
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.

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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.

Information about storage in one common storage facility:

Store away from foodstuffs.

Further information about storage conditions:

None.

Storage class

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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: 9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

WEL Short-term value: 0.07 mg/m³

Long-term value: 0.02 mg/m³

Sen; as -NCO

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· **DNELs**

CAS: 9016-87-9 diphenylmethanediisocyanate, isomers and homologues

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

CAS: 9016-87-9 diphenylmethanediisocyanate, isomers and homologues

PNEC	1 mg/l (Sewage Treatment Plant)
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	0.1 mg/l (Mew)
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	1 mg/l (Freshwater)
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PNEC	1 mg/kg dwt (Bod)
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· **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).

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

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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

· Physical state

Liquid

· Colour:

Whitish

· Smell:

Characteristic

· Odour threshold:

Not determined.

· Melting point/freezing point:

Not determined

· Boiling point or initial boiling point and boiling range

$>230\text{ }^{\circ}\text{C}$ (CAS: 26447-40-5 methylenediphenyl diisocyanate)

· Flammability

Not applicable.

· Lower and upper explosion limit

· Lower:

Not determined.

· Upper:

Not determined.

· Flash point:

$>200\text{ }^{\circ}\text{C}$

· Auto-ignition temperature:

$330\text{ }^{\circ}\text{C}$ (CAS: 166412-78-8 1,2-Cyclohexanedicarbonyldiisobutylester)

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· Decomposition temperature:	Not determined.
· pH	Mixture reacts violently with water. Not determined.
· Viscosity:	
· Kinematic viscosity	Not determined.
· dynamic at 20 °C:	800 mPas
· Solubility	
· Water:	Readily soluble
· Partition coefficient n-octanol/water (log value)	Not determined.
· Steam pressure at 20 °C:	0 hPa
· Density and/or relative density	
· Density at 20 °C	1.03 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.

· **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.
· Change in condition	
· Evaporation rate	Not determined.

· **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

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SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability** stable
- **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:**

CAS: 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)

2,2-Dimorpholinodiethyl ether

Oral	LD50	2025 mg/kg (rat)
Dermal	LD50	3038 mg/kg (rabbit)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Causes skin irritation.
- **Serious eye damage/irritation** Causes serious eye irritation.
- **Respiratory or skin sensitisation** May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- **Carcinogenicity** May cause an allergic skin reaction.
- **STOT-single exposure** Suspected of causing cancer.
- **STOT-repeated exposure** May cause respiratory irritation.
- **STOT-repeated exposure** May cause damage to organs through prolonged or repeated exposure.

- **11.2 Information on other hazards**

- **Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.

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- **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:** Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

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:** Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

SECTION 14: Transport information

- | | |
|--|-----------------|
| · 14.1 UN number or ID number | |
| · ADR, IMDG, IATA | Void |
| · 14.2 UN proper shipping name | |
| · ADR, 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. |

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- | | |
|---|------------------------|
| <ul style="list-style-type: none"> · 14.7 Maritime transport in bulk according to IMO instruments | <p>Not applicable.</p> |
| <ul style="list-style-type: none"> · UN "Model Regulation": | <p>Void</p> |

SECTION 15: Regulatory information

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

- **Regulated explosives precursors**

CAS: 7664-38-2 phosphoric acid	30%
--------------------------------	-----

- **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**

None of the ingredients is listed.

- **15.2 Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

- | | |
|---|--|
| <ul style="list-style-type: none"> · Relevant phrases | <p>H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 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.
 H373 May cause damage to organs through prolonged or repeated exposure.
 EUH204 Contains isocyanates. May produce an allergic reaction.</p> |
| <ul style="list-style-type: none"> · Department issuing data specification sheet: | <p>Environment protection department.</p> |
| <ul style="list-style-type: none"> · Abbreviations and acronyms: | <p>RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)</p> |

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

Resp. Sens. 1: Respiratory sensitisation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

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

Carc. 2: Carcinogenicity – Category 2

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

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

· * Data compared to the
previous version altered.

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