



BE SURE. BUILD SURE.

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

Printing date 03.03.2023

Version number 19 (replaces version 18)

Revision: 03.03.2023

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

· 1.1 Product identifier

· Trade name **MC-Flex 2097 - 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

Polyurethane sealing
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.: +48612864565

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.

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:

*diphenylmethanediisocyanate, isomeres and homologues
diphenylmethane-4,4'-di-isocyanate
diphenylmethane-2,4'-diisocyanate
diphenylmethane-2,2'-diisocyanate*

· Hazard statements

*H332 Harmful if inhaled.
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.
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.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.*

· Additional information:

Contains isocyanates. May produce an allergic reaction.

· 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.

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· Dangerous components:

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 %	60-80%
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 %	10-30%
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 %	10-30%
CAS: 2536-05-2 EINECS: 219-799-4	diphenylmethane-2,2'-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%

· 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.
Seek medical treatment.

· After inhalation

Supply fresh air and call for doctor for safety reasons.

· 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.
Call a doctor immediately.*
- **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** *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.*

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
-----	---

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
-----	---

2536-05-2 diphenylmethane-2,2'-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)
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Inhalative	DNEL	0.05 mg/m ³ (ArL)
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5873-54-1 diphenylmethane-2,4'-diisocyanate

Inhalative	DNEL	0.05 mg/m ³ (ArL)
------------	------	------------------------------

· **PNECs**

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

PNEC	1 mg/l (Sewage Treatment Plant)
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	0.1 mg/l (Mew) 1 mg/l (Suw) PNEC 1 mg/kg dwt (Bod)
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
2536-05-2 diphenylmethane-2,2'-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 item 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 ≥ 0.35mm.

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- **Material of gloves** *Only suitable for splash protection. Only suitable for short-term exposure. In case of contamination, the protective gloves must be changed immediately.*
Nitrile rubber, NBR
- **Penetration time of glove material** *The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.*
- **Eye/face protection** *Safety glasses*
Tightly sealed safety glasses.
- **Body protection:** *Protective work clothing.*

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

- **Colour:** *Dark brown*
- **Smell:** *Characteristic*
- **Melting point/freezing point:** *Not determined*
- **Boiling point or initial boiling point and boiling range** *190 °C*
- **Flash point:** *201 °C*
- **Auto-ignition temperature:** *400 °C*
- **pH** *Not determined.*
- **Viscosity:**
- **Kinematic viscosity** *Not determined.*
- **dynamic at 20 °C:** *800 mPas*
- **Solubility**
- **Water:** *Hydrolized*
- **Steam pressure:** *Not determined.*
- **Density and/or relative density**
- **Density at 20 °C** *1.22 g/cm³*

· 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*

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- **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.
- **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** Harmful if inhaled.

· **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)

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 irritation.

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- **Respiratory or skin sensitisation** *May cause allergy or asthma symptoms or breathing difficulties if inhaled.*
- **Germ cell mutagenicity** *May cause an allergic skin reaction.*
- **Carcinogenicity** *Based on available data, the classification criteria are not met.*
- **Reproductive toxicity** *Suspected of causing cancer.*
- **STOT-single exposure** *Based on available data, the classification criteria are not met.*
- **STOT-repeated exposure** *May cause respiratory irritation.*
- **Aspiration hazard** *May cause damage to organs through prolonged or repeated exposure.*
- **11.2 Information on other hazards** *Based on available data, the classification criteria are not met.*

· **Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

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:**

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.

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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: 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.

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.

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· **Relevant phrases**

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.

· **Department issuing data specification sheet:**

Environment protection department.

· **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 (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
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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