



BE SURE. BUILD SURE.

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

Printing date 15.03.2024

Version number 28



Revision: 15.03.2024

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

- **Product identifier**
- **Trade name** MC-CarboSolid 1000 BC - 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**
*Layer to promote adhesion
Epoxy resin
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*

2 Hazards identification

- **Classification of the substance or mixture**
*Acute Tox. 4 H302 Harmful if swallowed.
Acute Tox. 5 H313 May be harmful in contact with skin.
Acute Tox. 5 H333 May be harmful if inhaled.
Skin Corr. 1A H314 Causes severe skin burns and eye damage.
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 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:** 2-methylpentane-1,5-diamine
Isophorone diamine
polymer amine terminated
Polyoxypropylenediamine
- **Hazard statements** Harmful if swallowed.
May be harmful in contact with skin.
May be harmful if inhaled.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
May cause respiratory irritation.
Harmful to aquatic life with long lasting effects.
- **Precautionary statements** Do not breathe dusts or mists.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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:**

	polymer amine terminated Eye Dam. 1, H318; Skin Irrit. 2, H315; Skin Sens. 1B, H317	30-60%
CAS: 2855-13-2	Isophorone diamine Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; Aquatic Chronic 3, H412	≥10-<25%
CAS: 15520-10-2	2-methylpentane-1,5-diamine Skin Corr. 1A, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; STOT SE 3, H335; Flam. Liq. 4, H227	≥20-≤30%
CAS: 9046-10-0	Polyoxypropylenediamine Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 5, H303; Acute Tox. 5, H313; Aquatic Chronic 3, H412	≥10-<25%
CAS: 90-72-2	2,4,6-tris(dimethylaminomethyl)phenol Skin Corr. 1C, H314; Eye Dam. 1, H318; Acute Tox. 4, H302	≥5-<10%

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· **Additional information**

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

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4 First aid measures

· **Description of first aid measures**

· **General information**

Remove contaminated clothing immediately. Consult a doctor if symptoms occur. Move affected person to fresh air.

· **After inhalation**

Supply fresh air; seek medical advice if symptoms occur.

· **After skin contact**

If unconscious, place in recovery position and seek medical advice. In case of contact with skin, wash carefully with plenty of soap and water. Consult a doctor in case of skin reactions.

· **After eye contact**

Rinse opened eye for several minutes under running water. Call a doctor immediately

· **After swallowing**

Rinse mouth with water. Never give anything by mouth to an unconscious person. DO NOT induce vomiting. If symptoms persist, consult a doctor.

· **Information for doctor**

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

Advice for the doctor: Elementary aid, decontamination, symptomatic treatment.

5 Firefighting measures

· **Extinguishing media**

· **Suitable extinguishing agents** Use fire fighting measures that suit the environment.

· **Special hazards arising from the substance or mixture**

No further relevant information available.

· **Advice for firefighters**

· **Protective equipment:**

No special measures required.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

· **Environmental precautions:**

Inform respective authorities in case product reaches water or sewage system.

· **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.

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See Section 13 for information on disposal.

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7 Handling and storage

· **Handling**

· **Precautions for safe handling** Open and handle containers with care.

Only use in well-ventilated areas (e.g. open construction, outdoor areas), in rooms without air exchange (e.g. closed rooms, underground car parks) ventilation measures are required.

Wear suitable personal protective equipment (see section 8). Avoid contact with eyes, skin and clothing. Change contaminated or damaged gloves and contaminated clothing immediately and wash skin immediately. Mix slowly, partially covering the mixing container. Pour carefully and slowly when repotting. Observe the BGGau technical data sheet and practical guide for handling epoxy resins. Open and handle containers with care.

· **Information about protection**

against explosions and fires: Ensure sufficient air exchange and/or extraction in the working areas. Take precautionary measures to avoid electrostatic discharges.

· **Conditions for safe storage, including any incompatibilities**

· **Storage**

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

No special requirements.

· **Further information about storage conditions:**

None.

· **Storage class**

8A

8 Exposure controls/personal protection

· **Additional information about**

design of technical systems: No further data; see section 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.

· **DNELs**

CAS: 2855-13-2 Isophorone diamine

Oral DNEL 0.526 mg/kg bw/Tag (ArL)

Inhalative DNEL 20.1 mg/m³ (ArL)

CAS: 15520-10-2 2-methylpentane-1,5-diamine

Dermal DNEL 1.5 mg/kg bw/day (ArL)

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Inhalative	DNEL	0.25 mg/m ³ (ArL) 0.5 mg/m ³ (Ark)
CAS: 9046-10-0 Polyoxypropylenediamine		
Oral	DNEL	0.04 mg/kg bw/Tag (ArL)
Dermal	DNEL	2.5 mg/kg bw/day (ArL)
CAS: 90-72-2 2,4,6-tris(dimethylaminomethyl)phenol		
Inhalative	DNEL	0.31 mg/m ³ (ArL)
· PNECs		
CAS: 2855-13-2 Isophorone diamine		
PNEC		0.006 mg/l (Mew) 0.06 mg/l (Freshwater)
PNEC		0.578 mg/kg dwt (Sediment) 5.784 mg/kg dwt (Fresh water sediment)
CAS: 15520-10-2 2-methylpentane-1,5-diamine		
PNEC		0.042 mg/l (Mew) 0.42 mg/l (Freshwater)
CAS: 9046-10-0 Polyoxypropylenediamine		
PNEC		7.5 mg/l (Sewage Treatment Plant) 0.015 mg/l (Fresh water)
PNEC		0.0176 mg/kg dwt (Bod) 0.125 mg/kg dwt (Sediment) 0.132 mg/kg dwt (Fresh water sediment)
CAS: 90-72-2 2,4,6-tris(dimethylaminomethyl)phenol		
PNEC		0.2 mg/l (Sewage Treatment Plant) 0.0084 mg/l (Mew) 0.084 mg/l (Freshwater)

· 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 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:

If workplace limit values cannot be complied with by ventilation measures or if rooms cannot be technically ventilated, respiratory protection must be worn: Use combination filter A1-P2 (brown/white) in rooms that cannot be ventilated. If oxygen deficiency is expected, use self-contained breathing apparatus. Observe wearing time limits according to §9 (3) GefStoffV in conjunction with BGR 190.

· Protection of hands:

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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· Material of gloves

You can find help with choosing gloves on the website <https://www.bgbau.de/fileadmin/Gisbau/Projekte.pdf>

For example, we recommend the Sol-vex 37-900 protective gloves from Ansell GmbH. The breakthrough time of the protective gloves can be found under point 8 "Penetration time of the glove material". The selection of a suitable glove depends not only on the material, but also on other quality features and varies from manufacturer to manufacturer. As the product

is a preparation of several substances, the resistance of glove materials cannot be calculated in advance and must therefore be checked before use.

Nitrile rubber

Recommended material thickness: ≥ 0.4 mm

· Penetration time of glove material

The breakthrough times of the Sol-vex 37-900 protective gloves are around 8 hours.

The following applies to all other gloves:

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

Nitrile rubber

Material thickness: ≥ 0.40 mm

Penetration time: ≥ 480 min

Butyl rubber:

Material thickness: ≥ 0.5 mm

Penetration time: ≥ 480 min

· Eye protection:

Tight-fitting safety goggles.

Safety goggles.

· Body protection:

Protective clothing

Suitable protective clothing should be worn when working with epoxy resins. In addition to normal work clothing (long trousers, long-sleeved shirt or T-shirt), disposable overalls, aprons, overshoes, sleeve protectors etc. may be necessary depending on the activity. Uncovered areas of skin should be avoided as far as possible, even in hot weather. If the work involves kneeling, the lower leg area should be protected by protective trousers.

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form:

Fluid

Colour:

Yellow

· Smell:

Characteristic

· pH-value:

Not determined.

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- **Change in condition**
Melting point/freezing point: Not determined
Initial boiling point and boiling range: 247 °C
- **Flash point:** >110 °C
- **Auto-ignition temperature:** 380 °C
- **Self-inflammability:** Product is not selfigniting.
- **Explosive properties:** Product is not explosive.
- **Steam pressure:** Not determined.
- **Density** Not determined
- **Solubility in / Miscibility with Water:** Not miscible or difficult to mix
- **Viscosity:**
dynamic: Not determined.
kinematic: Not determined.
- **Other information**

No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**
- **LD/LC50 values that are relevant for classification:**

CAS: 2855-13-2 Isophorone diamine		
Oral	LD50	1030 mg/kg (ATE)
		1030 mg/kg (rat)

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Dermal	NOAEL	250 mg/kg (rat)
	LD50	1840 mg/kg (rabbit)
		>2000 mg/kg (rat)
CAS: 15520-10-2 2-methylpentane-1,5-diamine		
Oral	LD50	1170 mg/kg (rat)
Dermal	LD50	1870 mg/kg (rabbit)
Inhalative	LC50/4 h	19.6 mg/l (rat)
CAS: 9046-10-0 Polyoxypropylenediamine		
Oral	LD50	2855 mg/kg (Rat)
Dermal	LD50	2980 mg/kg (Kan)
CAS: 90-72-2 2,4,6-tris(dimethylaminomethyl)phenol		
Oral	LD50	mg/kg (rat)
	NOAEL	15 mg/kg (rat)

· **Primary irritant effect:**

· **Skin corrosion/irritation** Caustic effect on skin and mucous membranes.

· **Serious eye damage/irritation** Strong caustic effect.

· **Respiratory or skin sensitisation** No sensitizing effect known.

· **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

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:**

CAS: 2855-13-2 Isophorone diamine

LC50/96h	110 mg/l (Leucidus idus)
EC50	1120 mg/l (Pseudomonas putida)
EC50/48h	23 mg/l (Daphnia magna)
NOEC	1.5 mg/l (Desmodesmus subspicatus)
	3 mg/l (Daphnia magna)
ErC50/72h	>50 mg/l (Desmodesmus subspicatus)

CAS: 15520-10-2 2-methylpentane-1,5-diamine

EC50/72h	>100 mg/l (algae)
EC50	1825 mg/l (fish)

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EC50/48h	19.8 mg/l (Daphnia magna)
CAS: 90-72-2 2,4,6-tris(dimethylaminomethyl)phenol	
EC50/72h	84 mg/l (Desmodesmus subspicatus)
LC50/96h	175 mg/l (Cyp) 718 mg/l (Daphnia magna)
NOEC	2 mg/l (BEL) 6.25 mg/l (Desmodesmus subspicatus)

- **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.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:** Harmful to aquatic organisms
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.
- **Uncleaned packagings:**
- **Recommendation:** Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

14 Transport information

- **UN-Number**
- **ADR, IMDG, IATA** UN1760
- **UN proper shipping name**
- **ADR, IMDG, IATA** CORROSIVE LIQUID, N.O.S. (2-methylpentane-1,5-diamine, Polyoxypropylenediamine)
- **Transport hazard class(es)**
- **ADR**
- **Class** 8 (C9) Corrosive substances.

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· Label	8
· IMDG, IATA	
· Class	8 Corrosive substances.
· Label	8
· Packing group	
· ADR, IMDG, IATA	II
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Warning: Corrosive substances.
· Kemler Number:	80
· EMS Number:	F-A, S-B
· Stowage Category	B
· Stowage Code	SW2 Clear of living quarters.
· Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Transport category	2
· Tunnel restriction code	E
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1760 CORROSIVE LIQUID, N.O.S. (2-METHYLPENTANE-1,5-DIAMINE, POLYOXYPROPYLENEDIAMINE), 8, II

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.

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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

Flam. Liq. 4: Flammable liquids – Category 4

Acute Tox. 4: Acute toxicity – Category 4

Acute Tox. 5: Acute toxicity – Category 5

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Corr. 1C: Skin corrosion/irritation – Category 1C

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

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

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

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