

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

Printing date 09.02.2024

Version number 25 (replaces version 24)



Revision: 09.02.2024

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

- **1.1 Product identifier**
- **Trade name** **BRAWO Silicate FAST - 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:** *BRAWO SYSTEMS GmbH
Blechhammerweg 13-17
67659 Kaiserslautern
Deutschland/Germany*
- **Informing department:** *Tel: +49(0)631-205 61 100
Technische Abteilung
msds@brawoliner.de*
- **1.4 Emergency telephone number:** *+49 (0) 61 31 - 19 240 (Giftnotruf Mainz)*

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.*
- **Hazard pictograms**

GHS07 GHS08
- **Signal word** *Danger*
- **Hazard-determining components of labelling:** *diphenylmethanediisocyanate, isomeres and homologues*
- **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.*

(Contd. on page 2)

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

Printing date 09.02.2024

Version number 25 (replaces version 24)

Revision: 09.02.2024

Trade name **BRAWO Silicate FAST - Komponente B**

(Contd. of page 1)

- H351 Suspected of causing cancer.**
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.
- **Precautionary statements**
- | | |
|----------------|--|
| P101 | If medical advice is needed, have product container or label at hand. |
| P102 | Keep out of reach of children. |
| P103 | Read carefully and follow all instructions. |
| 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. |
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P501 | Dispose of contents/container in accordance with local/regional/national/international regulations. |
- **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:** Mixture consisting of the following components.

· **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 %	50-70%
CAS: 28553-12-0 EINECS: 249-079-5	diisononyl phthalate substance with a Community workplace exposure limit	10-30%

- **Additional information** For the wording of the listed hazard phrases refer to section 16.

GB

(Contd. on page 3)

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

Printing date 09.02.2024

Version number 25 (replaces version 24)

Revision: 09.02.2024

Trade name **BRAWO Silicate FAST - Komponente B**

(Contd. of page 2)

SECTION 4: First aid measures

· 4.1 Description of first aid measures

- **General information** *Take affected persons into the open air.
Seek medical treatment.
Symptoms of poisoning may even occur after several hours;
therefore medical observation for at least 48 hours after the
accident.*
- **After inhalation** *Supply fresh air and call for doctor for safety reasons.
In case of unconsciousness bring patient into stable side position
for transport.*
- **After skin contact** *Instantly wash with water and soap and rinse thoroughly.*
- **After eye contact** *Call a doctor immediately.
Rinse opened eye for several minutes under running water. If
symptoms persist, consult doctor.*
- **After swallowing** *Call a doctor immediately.*

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)
Under certain fire conditions, traces of other toxic gases cannot be
excluded.*
- **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:** *No special measures required.*
- **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.*

GB

(Contd. on page 4)

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

Printing date 09.02.2024

Version number 25 (replaces version 24)

Revision: 09.02.2024

Trade name **BRAWO Silicate FAST - Komponente B**

(Contd. of page 3)

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.
- **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

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

CAS: 28553-12-0 diisononyl phthalate

WEL	Long-term value: 5 mg/m ³
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· DNELs

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

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

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

PNEC	1 mg/l (Sewage Treatment Plant)
	0.1 mg/l (Mew)
	1 mg/l (Freshwater)
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 foodstuffs, beverages and food.
Instantly remove any soiled and impregnated garments.
Wash hands during breaks and at the end of the work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.

(Contd. on page 5)

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

Printing date 09.02.2024

Version number 25 (replaces version 24)

Revision: 09.02.2024

Trade name **BRAWO Silicate FAST - Komponente B**

(Contd. of page 4)

- **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 $\geq 0.35\text{mm}$. 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** 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 (CAS: 9016-87-9 diphenylmethanediisocyanate, isomeres and homologues)
- **Lower and upper explosion limit**
- **Lower:** <0.1 Vol % (CAS: 28553-12-0 diisononyl phthalate)
- **Upper:** 0.2 Vol %
- **Flash point:** 201 °C
- **pH** Not applicable.
Not determined.
- **Viscosity:**
- **Kinematic viscosity** Not determined.
- **dynamic at 20 °C:** 375 mPas
- **Solubility**
- **Water:** Not miscible or difficult to mix
- **Steam pressure at 25 °C:** 0 hPa (CAS: 9016-87-9 diphenylmethanediisocyanate, isomeres and homologues)
- **Density and/or relative density**
- **Density at 20 °C** 1.13 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.

(Contd. on page 6)

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

Printing date 09.02.2024

Version number 25 (replaces version 24)

Revision: 09.02.2024

Trade name **BRAWO Silicate FAST - Komponente B**

(Contd. of page 5)

· **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.
- **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:**

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)

CAS: 28553-12-0 diisononyl phthalate

Oral	LD50	10000 mg/kg (rat)
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- **Skin corrosion/irritation** Causes skin irritation.

(Contd. on page 7)

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

Printing date 09.02.2024

Version number 25 (replaces version 24)

Revision: 09.02.2024

Trade name BRAWO Silicate FAST - Komponente B

(Contd. of page 6)

- **Serious eye damage/irritation** Causes serious eye irritation.
- **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.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** May cause respiratory irritation.
- **STOT-repeated exposure** May cause damage to organs 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:**

CAS: 28553-12-0 diisononyl phthalate

EC50/72h	88 mg/l (algae)
LC50/96h	102 mg/l (Danio rerio)
EC50/48h	74 mg/l (Daphnia magna)
NOEC	101 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.

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.

(Contd. on page 8)

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

Printing date 09.02.2024

Version number 25 (replaces version 24)

Revision: 09.02.2024

Trade name **BRAWO Silicate FAST - Komponente B**

(Contd. of page 7)

- **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.
- **Poisons Act**

· **Regulated explosives precursors**
None of the ingredients is listed.

· **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.

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

GB

(Contd. on page 9)

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

Printing date 09.02.2024

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Revision: 09.02.2024

Trade name BRAWO Silicate FAST - Komponente B

(Contd. of page 8)

SECTION 16: Other information

- **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.**