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# Safety Data Sheet

## MELFLUX 5581 F MB

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(30857638/SDS\_GEN\_US/EN)

### 1. Identification

**Product identifier used on the label**

**MELFLUX 5581 F MB**

**Recommended use of the chemical and restriction on use**

Recommended use\*: Product for construction chemicals

Recommended use\*: Raw material

Suitable for use in industrial sector: cement industry

\* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

**Details of the supplier of the safety data sheet**

Company:

BASF CORPORATION  
100 Park Avenue  
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

**Emergency telephone number**

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300

BASF HOTLINE: 1-800-832-HELP (4357)

**Other means of identification**

Chemical family: Polymer based on: polycarboxylate ether

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### 2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

**Classification of the product**

Combustible Dust

Combustible Dust (1)

Combustible Dust

**Label elements**

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Signal Word:  
Warning

Hazard Statement:  
May form combustible dust concentration in air.

### Hazards not otherwise classified

The product is under certain conditions capable of dust explosion.

## 3. Composition / Information on Ingredients

### According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Silicon dioxide  
CAS Number: 7631-86-9  
Synonym: Siliciumdioxid

Under the referenced regulation, this product does not contain any components classified for health hazards above the relevant cut off value.

## 4. First-Aid Measures

### Description of first aid measures

**General advice:**  
Remove contaminated clothing.

**If inhaled:**  
If difficulties occur after dust has been inhaled, remove to fresh air and seek medical attention.

**If on skin:**  
Wash thoroughly with soap and water. If irritation develops, seek medical attention.

**If in eyes:**  
Wash affected eyes for at least 15 minutes under running water with eyelids held open. If irritation develops, seek medical attention.

**If swallowed:**  
Rinse mouth and then drink 200-300 ml of water. Do not induce vomiting. Seek medical attention.

### Most important symptoms and effects, both acute and delayed

Symptoms: (Further) symptoms and / or effects are not known so far  
Hazards: No applicable information available.

### Indication of any immediate medical attention and special treatment needed

#### Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

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### 5. Fire-Fighting Measures

#### Extinguishing media

Suitable extinguishing media:  
dry powder, foam

Unsuitable extinguishing media for safety reasons:  
carbon dioxide

Additional information:  
Avoid whirling up the material/product because of the danger of dust explosion.

#### Special hazards arising from the substance or mixture

Hazards during fire-fighting:

harmful vapours

Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

#### Advice for fire-fighters

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

#### Further information:

Dusty conditions may ignite explosively in the presence of an ignition source causing flash fire.

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### 6. Accidental release measures

#### Further accidental release measures:

Avoid dispersal of dust in the air (e.g. by clearing dusty surfaces with compressed air). Avoid the formation and build-up of dust - danger of dust explosion. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition.

#### Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Use personal protective clothing.

#### Environmental precautions

Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

#### Methods and material for containment and cleaning up

For small amounts: Pick up with suitable appliance and dispose of.

For large amounts: Contain with dust binding material and dispose of.

Avoid raising dust.

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### 7. Handling and Storage

#### Precautions for safe handling

Closed containers should only be opened in well-ventilated areas.

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Protection against fire and explosion:  
Dust can form an explosive mixture with air.

### Conditions for safe storage, including any incompatibilities

No applicable information available.

Further information on storage conditions: Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect from direct sunlight. The substance/product may cake at higher temperatures/pressure.

Storage class according to TRGS 510 (originally VCI, Germany): (11) Combustible solids.  
Protect from temperatures above: 40 °C  
The packed product must be protected against exceeding the indicated temperature.

## 8. Exposure Controls/Personal Protection

### Components with occupational exposure limits

Silicon dioxide	ACGIH, US:	TWA value 10 mg/m3 Inhalable particles ;
	ACGIH, US:	TWA value 3 mg/m3 Respirable particles ;
	OSHA Z3:	TWA value 15 mg/m3 Total dust ;
	OSHA Z3:	TWA value 5 mg/m3 Respirable fraction ;
	OSHA Z3:	TWA value 50 millions of particles per cubic foot of air Total dust ;
	OSHA Z3:	TWA value 15 millions of particles per cubic foot of air Respirable fraction ;
	OSHA Z3:	TWA value 0.8 mg/m3 ; The exposure limit is calculated from the equation, $80\text{mg/m}^3 / (\% \text{SiO}_2)$ , using a value of 100% SiO <sub>2</sub> . Lower percentages of SiO <sub>2</sub> will yield higher exposure limits.
	OSHA Z3:	TWA value 20 millions of particles per cubic foot of air ;

### Advice on system design:

It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

### Personal protective equipment

#### Respiratory protection:

Wear a NIOSH-certified (or equivalent) particulate respirator.

Observe OSHA regulations for respirator use (29 CFR 1910.134).

#### Hand protection:

Chemical resistant protective gloves

#### Eye protection:

Safety glasses with side-shields. Wear face shield if splashing hazard exists.

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### Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

### General safety and hygiene measures:

Wear protective clothing as necessary to minimize contact. Handle in accordance with good industrial hygiene and safety practice. When using, do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. At the end of the shift the skin should be cleaned and skin-care agents applied. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks).

## 9. Physical and Chemical Properties

Form:	powder	
Odour:	characteristic	
Odour threshold:	No applicable information available.	
Colour:	Yellowish to brownish	
pH value:	approx. 6.5 - 8.5 ( 20 %(m), 20 °C)	
Melting temperature:	The substance / product decomposes therefore not determined.	
boiling temperature:	not applicable	
Sublimation point:	No applicable information available.	
Flash point:	not applicable	
Autoignition:	360 °C	(BS EN 50281-2-1 Method B)
Vapour pressure:	The product has not been tested.	
Density:	1 g/cm <sup>3</sup> ( 20 °C) not applicable	
Bulk density:	approx. 300 - 550 kg/m <sup>3</sup>	
Vapour density:	The product is a non-volatile solid.	
Partitioning coefficient n-octanol/water (log Pow):	not applicable for mixtures	
Self-ignition temperature:	165 °C Data for powdery solid. No self ignition was observed up to the specified temperature.	(VDI 2263, sheet 1, 1.4.2 (May 1990))
Thermal decomposition:	> 180 °C No decomposition if stored and handled as prescribed/indicated.	
Viscosity, dynamic:	not applicable, the product is a solid	
Viscosity, kinematic:	No applicable information available.	
Particle size:	D50 < 300 µm	(ISO 13322-2)
Solubility in water:	( 20 °C) soluble	
Miscibility with water:	not applicable	
Solubility (quantitative):	No applicable information available.	
Solubility (qualitative):	No applicable information available.	
Evaporation rate:	The product is a non-volatile solid.	
Other Information:	If necessary, information on other physical and chemical parameters is indicated in this section.	

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### 10. Stability and Reactivity

#### Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals:

Corrosive effects to metal are not anticipated.

Oxidizing properties:

not fire-propagating

Minimum ignition energy:

30 - 100 mJ, Inductivity: 1 mH, Grain size distribution: < 63 µm

#### Chemical stability

The product is stable if stored and handled as prescribed/indicated.

#### Possibility of hazardous reactions

Dust explosion hazard.

#### Conditions to avoid

See SDS section 7 - Handling and storage.

#### Incompatible materials

strong acids, strong bases, strong oxidizing agents, strong reducing agents

#### Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:

> 180 °C

No decomposition if stored and handled as prescribed/indicated.

### 11. Toxicological information

#### Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

#### Acute Toxicity/Effects

##### Acute toxicity

Assessment of acute toxicity: Virtually nontoxic after a single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact. Based on available data, the classification criteria are not met.

##### Oral

Type of value: LD50

Species: rat

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Value: > 5,000 mg/kg

The product has not been tested. The statement has been derived from the properties of the individual components.

### Inhalation

Type of value: LC50

Species: rat

Exposure time: 4 h  
not determined

### Dermal

Type of value: LD50

Species: rat

not determined

### Assessment other acute effects

Assessment of STOT single:

Based on available data, the classification criteria are not met.

### Irritation / corrosion

Assessment of irritating effects: No irritation is expected under intended use and appropriate handling. Based on available data, the classification criteria are not met.

### Skin

Species: rabbit

Result: non-irritant

The product has not been tested. The statement has been derived from the properties of the individual components.

### Eye

Species: rabbit

Result: non-irritant

The product has not been tested. The statement has been derived from the properties of the individual components.

### Sensitization

Assessment of sensitization: Based on the ingredients, there is no suspicion of a skin-sensitizing potential. Based on available data, the classification criteria are not met.

Species: guinea pig

Result: Non-sensitizing.

### Aspiration Hazard

not applicable

## **Chronic Toxicity/Effects**

### Repeated dose toxicity

Assessment of repeated dose toxicity: The information available on the product provides no indication of toxicity on target organs after repeated exposure.

### Genetic toxicity

Assessment of mutagenicity: Based on the ingredients, there is no suspicion of a mutagenic effect.

### Carcinogenicity

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Assessment of carcinogenicity: The whole of the information assessable provides no indication of a carcinogenic effect.

### Reproductive toxicity

Assessment of reproduction toxicity: Based on the ingredients, there is no suspicion of a toxic effect on reproduction.

### Teratogenicity

Assessment of teratogenicity: Based on the ingredients, there is no suspicion of a teratogenic effect.

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## 12. Ecological Information

### Toxicity

#### Aquatic toxicity

Assessment of aquatic toxicity:

Based on available data, the classification criteria are not met. There is a high probability that the product is not acutely harmful to aquatic organisms.

#### Toxicity to fish

LC50 (96 h), Fish (other)  
not determined

#### Aquatic invertebrates

LC50 (48 h), daphnia (other)  
not determined

#### Aquatic plants

EC50 (72 h), algae (other)  
not determined

#### Chronic toxicity to fish

No data available.

#### Chronic toxicity to aquatic invertebrates

No data available.

### Microorganisms/Effect on activated sludge

#### Toxicity to microorganisms

other  
bacteria/EC50 (0.5 h):  
not determined

### Persistence and degradability

#### Assessment biodegradation and elimination (H2O)

Not readily biodegradable (by OECD criteria).

### Bioaccumulative potential

#### Assessment bioaccumulation potential

No data available.



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### Mobility in soil

Assessment transport between environmental compartments

No data available.

### Additional information

Other ecotoxicological advice:

Do not discharge product into the environment without control. The product has not been tested. The statements on ecotoxicology have been derived from the properties of the individual components.

## 13. Disposal considerations

### Waste disposal of substance:

Dispose of in accordance with local authority regulations. Do not discharge into drains/surface waters/groundwater.

### Container disposal:

Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

## 14. Transport Information

### Land transport

USDOT

Not classified as a dangerous good under transport regulations

### Sea transport

IMDG

Not classified as a dangerous good under transport regulations

### Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

## 15. Regulatory Information

### Federal Regulations

#### Registration status:

Chemical TSCA, US released / listed

**EPCRA 311/312 (Hazard categories):** Refer to SDS section 2 for GHS hazard classes applicable for this product.

### State regulations

#### State RTK

PA

#### CAS Number

7631-86-9

#### Chemical name

Silicon dioxide

**Safe Drinking Water & Toxic Enforcement Act, CA Prop. 65:**

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**WARNING:** This product can expose you to chemicals including ETHYLENE OXIDE, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**NFPA Hazard codes:**

Health: 0      Fire: 1      Reactivity: 0      Special:

### 16. Other Information

**SDS Prepared by:**

BASF NA Product Regulations

SDS Prepared on: 2024/03/14

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

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