

### MATERIAL SAFETY DATA SHEET (MSDS)

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

##### 1.1. Product identifier

Product form : Substance  
:  
EC no : 233-252-7  
CAS No : 10101-52-7  
Product code : 06570  
Chemical structure :  $ZrSiO_4$   
  
Synonyms : Zirconium(IV) silicon oxide

##### 1.2. Relevant identified uses of the substance or mixture and uses advised against

###### 1.2.1. Relevant identified uses

Use of the substance/mixture : Industrial. For professional use only

###### 1.2.2. Uses advised against

No additional information available

##### 1.3. Details of the supplier of the safety data sheet

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#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (inhal.), H332  
Category 4  
Serious eye damage/eye H319  
irritation, Category 2  
Skin corrosion/irritation, H315  
Category 2  
Specific target organ H335  
toxicity — Single  
exposure, Category 3,  
Respiratory tract irritation

Full text of classification categories and H statements : see section 16

# ZIRCONIUM SILICATE EXTRA PURE

## Safety Data Sheet

### Classification according to Directive 67/548/EEC or 1999/45/EC

Xn; R20

Xi; R36/37/38

Full text of R-phrases: see section 16

### Adverse physicochemical, human health and environmental effects

No additional information available

## 2.2. Label elements

### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) :

Warning

Hazard statements (CLP) :

H315 - Causes skin irritation  
H319 - Causes serious eye irritation  
H332 - Harmful if inhaled  
H335 - May cause respiratory irritation

Precautionary statements (CLP) :

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

## 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Name : ZIRCONIUM SILICATE EXTRA PURE

CAS No : 10101-52-7

EC no : 233-252-7

Full text of R- and H-phrases: see section 16

### 3.2. Mixture

Not applicable

# ZIRCONIUM SILICATE EXTRA PURE

## Safety Data Sheet

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
- First-aid measures after skin contact : Wash with plenty of soap and water. Get medical advice/attention.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
- First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Get medical advice/attention.

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

- Symptoms/injuries after inhalation : May cause respiratory irritation. Harmful if inhaled.
- Symptoms/injuries after skin contact : Causes skin irritation.
- Symptoms/injuries after eye contact : Causes serious eye irritation.

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

No additional information available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

- Suitable extinguishing media : Carbon dioxide. Dry powder. Foam. Water spray.
- Unsuitable extinguishing media : Do not use a heavy water stream.

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

No additional information available

#### 5.3. Advice for firefighters

- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

### SECTION 6: Accidental release measures

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

##### 6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

- Protective equipment : Use personal protective equipment as required.

#### 6.2. Environmental precautions

Avoid release to the environment.

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

- Methods for cleaning up : Minimize generation of dust. On land, sweep or shovel into suitable containers.

#### 6.4. Reference to other sections

No additional information available

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling : Avoid contact with skin and eyes. Avoid dust formation. Do not breathe vapours.
- Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

#### 7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep container tightly closed. Store in a well-ventilated place.

# ZIRCONIUM SILICATE EXTRA PURE

## Safety Data Sheet

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

|                          |                                      |
|--------------------------|--------------------------------------|
| Hand protection          | : protective gloves                  |
| Eye protection           | : Chemical goggles or safety glasses |
| Skin and body protection | : Wear suitable protective clothing  |
| Respiratory protection   | : Wear respiratory protection        |

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|  |                             |
|--|-----------------------------|
| Physical state                             | : Solid                     |
| Colour                                     | : Light grey to white.      |
| Odour                                      | : odourless.                |
| Odour threshold                            | : No data available         |
| pH   | : No data available         |
| Relative evaporation rate (butylacetate=1) | : No data available         |
| Melting point                              | : > 2550 °C                 |
| Freezing point                             | : No data available         |
| Boiling point                              | : No data available         |
| Flash point                                | : No data available         |
| Auto-ignition temperature                  | : No data available         |
| Decomposition temperature                  | : No data available         |
| Flammability (solid, gas)                  | : No data available         |
| Vapour pressure                            | : No data available         |
| Relative vapour density at 20 °C           | : No data available         |
| Relative density                           | : No data available         |
| Density                                    | : 4.56 g/cm <sup>3</sup>    |
| Solubility                                 | : Water: Insoluble in water |
| Log Pow                                    | : No data available         |
| Viscosity, kinematic                       | : No data available         |

# ZIRCONIUM SILICATE EXTRA PURE

## Safety Data Sheet

|                      |                     |
|----------------------|---------------------|
| Viscosity, dynamic   | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Explosive limits     | : No data available |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Direct sunlight. Air contact. Moisture.

### 10.5. Incompatible materials

Oxidizing agent.

### 10.6. Hazardous decomposition products

No additional information available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

|  |                                     |
|--|-------------------------------------|
| Acute toxicity                                     | : Inhalation: Harmful if inhaled.   |
| Skin corrosion/irritation                          | : Causes skin irritation.           |
| Serious eye damage/irritation                      | : Causes serious eye irritation.    |
| Respiratory or skin sensitisation                  | : Not classified                    |
| Germ cell mutagenicity                             | : Not classified                    |
| Carcinogenicity                                    | : Not classified                    |
| Reproductive toxicity                              | : Not classified                    |
| Specific target organ toxicity (single exposure)   | : May cause respiratory irritation. |
| Specific target organ toxicity (repeated exposure) | : Not classified                    |
| Aspiration hazard                                  | : Not classified                    |

# ZIRCONIUM SILICATE EXTRA PURE

## Safety Data Sheet

### SECTION 12: Ecological information

#### 12.1. Toxicity

No additional information available

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

No additional information available

### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number

|               |                  |
|---------------|------------------|
| UN-No. (ADR)  | : Not applicable |
| UN-No. (IMDG) | : Not applicable |
| UN-No.(IATA)  | : Not applicable |
| UN-No.(ADN)   | : Not applicable |
| UN-No. (RID)  | : Not applicable |

#### 14.2. UN proper shipping name

|                             |                  |
|-----------------------------|------------------|
| Proper Shipping Name (ADR)  | : Not applicable |
| Proper Shipping Name (IMDG) | : Not applicable |
| Proper Shipping Name (IATA) | : Not applicable |
| Proper Shipping Name (ADN)  | : Not applicable |
| Proper Shipping Name (RID)  | : Not applicable |

#### 14.3. Transport hazard class(es)

##### ADR

|                                  |                  |
|----------------------------------|------------------|
| Transport hazard class(es) (ADR) | : Not applicable |
|----------------------------------|------------------|

##### IMDG

|                                   |                  |
|-----------------------------------|------------------|
| Transport hazard class(es) (IMDG) | : Not applicable |
|-----------------------------------|------------------|

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## Safety Data Sheet

### IATA

Transport hazard class(es) (IATA) : Not applicable

### ADN

Transport hazard class(es) (ADN) : Not applicable

### RID

Transport hazard class(es) (RID) : Not applicable

### 14.4. Packing group

Packing group (ADR) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

Packing group (ADN) : Not applicable

Packing group (RID) : Not applicable

### 14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

### 14.6. Special precautions for user

#### - Overland transport

No data available

#### - Transport by sea

No data available

#### - Air transport

No data available

#### - Inland waterway transport

No data available

#### - Rail transport

No data available

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

ZIRCONIUM SILICATE EXTRA PURE is not on the REACH Candidate List

ZIRCONIUM SILICATE EXTRA PURE is not on the REACH Annex XIV List

#### 15.1.2. National regulations

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## Safety Data Sheet

### Germany

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

### Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

## 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

Full text of R-, H- and EUH-phrases:

|                           |  |
|---------------------------|--|
| Acute Tox. 4 (Inhalation) | Acute toxicity (inhal.), Category 4  |
| Eye Irrit. 2              | Serious eye damage/eye irritation, Category 2  |
| Skin Irrit. 2             | Skin corrosion/irritation, Category 2  |
| STOT SE 3                 | Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation |
| H315                      | Causes skin irritation   |
| H319                      | Causes serious eye irritation  |
| H332                      | Harmful if inhaled   |
| H335                      | May cause respiratory irritation   |
| R20                       | Harmful by inhalation  |
| R36/37/38                 | Irritating to eyes, respiratory system and skin  |
| Xi                        | Irritant   |
| Xn                        | Harmful  |

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*