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

1.1. Product identifier

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product form</td>
<td>Substance</td>
</tr>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Substance name</td>
<td>MAGNESIUM SILICATE, hydrous</td>
</tr>
<tr>
<td>Product code</td>
<td>SIM6471.0</td>
</tr>
<tr>
<td>Formula</td>
<td>Mg3O10(OH)2Si4</td>
</tr>
<tr>
<td>Synonyms</td>
<td>TALC</td>
</tr>
<tr>
<td>Chemical family</td>
<td>INORGANIC SILICATE</td>
</tr>
</tbody>
</table>

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: Chemical intermediate

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

GELEST, INC.
11 East Steel Road
Morrisville, PA 19067
USA
T 215-547-1015 - F 215-547-2484 - (M-F): 8:00 AM - 5:30 PM EST
info@gelest.com - www.gelest.com

GELEST INC.
Fritz-Klatte-Strasse 8
65933 Frankfurt
Germany
T +49 (0) 69 3535106-500 - F +49 (0) 69 3535106-501 - (M-F): 8:00 AM - 4:00 PM
info@gelestde.com - www.gelestde.com

1.4. Emergency telephone number

Emergency number: CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

- Carcinogenicity, Category 1A: H350
- Specific target organ toxicity — Repeated exposure, Category 2: H373

Full text of H statements: 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]

<table>
<thead>
<tr>
<th>Hazard pictograms (CLP)</th>
<th>H350 - May cause cancer.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHS08</td>
<td>H373 - May cause damage to organs through prolonged or repeated exposure.</td>
</tr>
<tr>
<td>P201 - Obtain special instructions before use.</td>
<td>P202 - Do not handle until all safety precautions have been read and understood.</td>
</tr>
</tbody>
</table>
P260 - Do not breathe dust.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P314 - Get medical advice/attention if you feel unwell.
P405 - Store locked up.

2.3. Other hazards
No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium silicate</td>
<td>(CAS-No.) 14807-96-6</td>
<td>97 - 100</td>
<td>Not classified</td>
</tr>
<tr>
<td>Quartz</td>
<td>(CAS-No.) 14808-60-7</td>
<td>0 - 1</td>
<td>Carc. 1A, H350 STOT RE 1, H372</td>
</tr>
</tbody>
</table>

Full text of H-statements: see section 16

3.2. Mixtures
Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general: Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not available show packaging or label.

First-aid measures after inhalation: Remove person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice.

First-aid measures after skin contact: Wash with plenty of water/…. Get medical advice/attention.

First-aid measures after eye contact: Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

First-aid measures after ingestion: Never give anything by mouth to an unconscious person. Get medical advice/attention.

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

Symptoms/effects: Causes damage to organs through prolonged or repeated exposure.
Symptoms/effects after inhalation: May cause irritation to the respiratory tract.
Symptoms/effects after skin contact: May cause skin irritation.
Symptoms/effects after eye contact: May cause eye irritation.
Symptoms/effects after ingestion: No information available.
Chronic symptoms: Long-term excessive exposure may cause talcosis, a pulmonary fibrosis, which in turn may lead to severe and permanent damage to lungs. This product contains small amounts of crystalline silica which causes silicosis. IARC found sufficient evidence in humans of carcinogenicity of inhaled crystalline silica in the form of quartz or cristobalite.

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: Not combustible.
Unsuitable extinguishing media: None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard: None known.

5.3. Advice for firefighters

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection. Avoid contact with skin and eyes. Do not breathe dust.
MAGNESIUM SILICATE, hydrous
Safety Data Sheet

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment: Wear protective equipment as described in Section 8.
Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment: Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: “Exposure controls/personal protection”.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
Methods for cleaning up: Sweep or shovel spills into appropriate container for disposal.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact with skin and eyes. Avoid dust formation. Do not breathe dust. Provide local exhaust or general room ventilation to minimize exposure to dust.
Hygiene measures: Wash contaminated clothing before reuse. 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 locked up.
Incompatible materials: None known.
Storage area: Store in a well-ventilated place. Store away from heat.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Country</th>
<th>MAK (mg/m³)</th>
<th>Limit value (mg/m³)</th>
<th>MAK (mg/m³) (asbestos-free fibers-respirable fraction)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td></td>
<td></td>
<td>2 mg/m³</td>
</tr>
<tr>
<td>Belgium</td>
<td></td>
<td></td>
<td>2 mg/m³</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>MAK (mg/m³)</td>
<td></td>
<td>1 fibers/cm³ (containing &lt;2% free Crystalline silicon dioxide in respirable fraction-respirable fraction, fibers)</td>
</tr>
<tr>
<td></td>
<td>OEL TWA (mg/m³)</td>
<td></td>
<td>6 mg/m³ (containing &lt;2% free Crystalline silicon dioxide in respirable fraction-inhalable fraction)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3 mg/m³ (containing &lt;2% free Crystalline silicon dioxide in respirable fraction-respirable fraction)</td>
</tr>
<tr>
<td>Greece</td>
<td>OEL TWA (mg/m³)</td>
<td></td>
<td>10 mg/m³ (inhalable fraction)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 mg/m³ (respirable fraction)</td>
</tr>
<tr>
<td>Italy - Portugal - USA</td>
<td>MAK (mg/m³)</td>
<td></td>
<td>2 mg/m³ (Respirable dust, TWA – 8 hr. period)</td>
</tr>
<tr>
<td>ACGIH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USA IDLH</td>
<td></td>
<td></td>
<td>1000 mg/m³ (containing no asbestos and &lt;1% quartz)</td>
</tr>
<tr>
<td>USA NIOSH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NIOSH REL (TWA) (mg/m³)</td>
<td></td>
<td></td>
<td>2 mg/m³ (containing no Asbestos and &lt;1% Quartz-respirable dust)</td>
</tr>
<tr>
<td>USA OSHA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA PEL (TWA) (mg/m³)</td>
<td></td>
<td></td>
<td>2 mg/m³ (Table Z-3 Mineral Dust, published by OSHA)</td>
</tr>
<tr>
<td>Spain</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VLA-ED (mg/m³)</td>
<td></td>
<td></td>
<td>2 mg/m³ (this value is for the particulate matter that is free from Asbestos and contains less than 1% of Crystalline silica-respirable fraction)</td>
</tr>
<tr>
<td>Switzerland</td>
<td>MAK (mg/m³)</td>
<td></td>
<td>2 mg/m³ (respirable dust)</td>
</tr>
<tr>
<td>Netherlands</td>
<td></td>
<td>Grenswaarde TGG 8H (mg/m³)</td>
<td>0.25 mg/m³</td>
</tr>
<tr>
<td>United Kingdom</td>
<td></td>
<td>WEL TWA (mg/m³)</td>
<td>1 mg/m³ (respirable dust)</td>
</tr>
<tr>
<td>United Kingdom</td>
<td></td>
<td>WEL STEL (mg/m³)</td>
<td>3 mg/m³ (calculated-respirable dust)</td>
</tr>
<tr>
<td>Czech Republic</td>
<td></td>
<td>Expoziční limity (PEL) (mg/m³)</td>
<td>2 mg/m³</td>
</tr>
<tr>
<td>Denmark</td>
<td></td>
<td>Grænseværdie (langvarig) (mg/m³)</td>
<td>0.3 fibers/cm³ (containing fibers)</td>
</tr>
</tbody>
</table>
### Exposure controls

**Appropriate engineering controls:**
Provide local exhaust or general room ventilation.

**Personal protective equipment:**
Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

**Hand protection:**
Neoprene or nitrile rubber gloves

**Eye protection:**
Safety glasses. Contact lenses should not be worn

**Skin and body protection:**
Wear suitable protective clothing

**Respiratory protection:**
Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified dust and mist (orange cartridge) respirator.

### SECTION 9: Physical and chemical properties

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

**Physical state:** Solid

**Appearance:** Powder.

**Molecular mass:** 379.28 g/mol

**Colour:** White.
MAGNESIUM SILICATE, hydrous
Safety Data Sheet

- **Odour**: No data available
- **Odour threshold**: No data available
- **Refractive index**: No additional information available
- **pH**: No data available
- **Relative evaporation rate (butylacetate=1)**: No data available
- **Melting point**: 1557 °C dec
- **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)**: Not combustible
- **Sublimation point**: Median Particle Size: 3-6 microns
- **Vapour pressure**: < 0.01 mm Hg @ 20°C
- **Relative vapour density at 20 °C**: No data available
- **Relative density**: 2.75
- **% Volatiles**: 100%
- **Solubility**: Insoluble in water.
- **Log Pow**: No data available
- **Log Kow**: No data available
- **Viscosity, kinematic**: No data available
- **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.

10.3. **Possibility of hazardous reactions**
No additional information available

10.4. **Conditions to avoid**
None known.

10.5. **Incompatible materials**
None known.

10.6. **Hazardous decomposition products**
None known.

**SECTION 11: Toxicological information**

11.1. **Information on toxicological effects**

- **Acute toxicity**: Not classified
- **Skin corrosion/irritation**: Not classified
- **Serious eye damage/irritation**: Not classified
- **Respiratory or skin sensitisation**: Not classified
- **Germ cell mutagenicity**: Not classified
- **Carcinogenicity**: May cause cancer.

IARC found sufficient evidence in humans of carcinogenicity of inhaled crystalline silica in the form of quartz or cristobalite. This product contains a component that has been reported to be carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

**Magnesium silicate (14807-96-6)**

| IARC group | 3 - Not classifiable |

Print date: 11/04/2019
EN (English)
SDS ID: SIM6471.0
MAGNESIUM SILICATE, hydrous
Safety Data Sheet

**Magnesium silicate (14807-96-6)**

National Toxicology Program (NTP) Status: 1 - Evidence of Carcinogenicity, 5 - Twelfth Report - Items under consideration

**Quartz (14808-60-7)**
IARC group: 1 - Carcinogenic to humans

Reproductive toxicity: Not classified
STOT-single exposure: Not classified
STOT-repeated exposure: May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard: Not classified
Symptoms/effects after inhalation: May cause irritation to the respiratory tract.
Symptoms/effects after skin contact: May cause skin irritation.
Symptoms/effects after eye contact: May cause eye irritation.
Symptoms/effects after ingestion: Not classified
Chronic symptoms: Long-term excessive exposure may cause talcosis, a pulmonary fibrosis, which in turn may lead to severe and permanent damage to lungs. This product contains small amounts of crystalline silica which causes silicosis. IARC found sufficient evidence in humans of carcinogenicity of inhaled crystalline silica in the form of quartz or cristobalite.

**SECTION 12: Ecological information**

12.1. **Toxicity**
Acute aquatic toxicity: Not classified
Chronic aquatic toxicity: Not classified

**Magnesium silicate (14807-96-6)**

| LC50 fish 1 | > 100 g/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-static]) |

12.2. **Persistence and degradability**
No additional information available

12.3. **Bioaccumulative potential**
**Magnesium silicate (14807-96-6)**

| BCF fish 1 | (no known bioaccumulation) |

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**
Sewage disposal recommendations: Do not dispose of waste into sewer.
Product/Packaging disposal recommendations: This product is a naturally occurring mineral. Unless contaminated in service, this product is neutral to the environment. Landfill. Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to licensed waste disposal facility.
Ecology - waste materials: Avoid release to the environment.

**SECTION 14: Transport information**

14.1. **UN number**
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
MAGNESIUM SILICATE, hydrous
Safety Data Sheet

| 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

**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**
  Not applicable

- **Transport by sea**
  Not applicable

- **Air transport**
  Not applicable

- **Inland waterway transport**
  Not applicable

- **Rail transport**
  Not applicable

**14.7. Transport in bulk according to Annex II of Marpol 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
MAGNESIUM SILICATE, hydrous is not on the REACH Candidate List
MAGNESIUM SILICATE, hydrous is not on the REACH Annex XIV List
MAGNESIUM SILICATE, hydrous is not subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

% Volatiles : 100 %
15.1.2. National regulations

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

Netherlands
SZW-lijst van kankerverwekkende stoffen: The substance is not listed
SZW-lijst van mutagene stoffen: The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding: The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid: The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling: The substance is not listed

Denmark
Danish National Regulations: Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product
The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

15.2. Chemical safety assessment
No additional information available

SECTION 16: Other information

Abbreviations and acronyms:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ND</td>
<td>Not Determined, No Data</td>
</tr>
<tr>
<td>NA</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>LD</td>
<td>Lethal Dose</td>
</tr>
<tr>
<td>LC</td>
<td>Lethal Concentration</td>
</tr>
<tr>
<td>ATE</td>
<td>Acute Toxicity Estimates</td>
</tr>
<tr>
<td>H</td>
<td>hour</td>
</tr>
<tr>
<td>°C</td>
<td>°C unless otherwise stated</td>
</tr>
<tr>
<td>mm</td>
<td>millimeters</td>
</tr>
<tr>
<td>Hg</td>
<td>torr</td>
</tr>
<tr>
<td>PEL</td>
<td>permissible exposure level</td>
</tr>
<tr>
<td>TWA</td>
<td>time weighted average</td>
</tr>
<tr>
<td>TLV</td>
<td>threshold limit value</td>
</tr>
<tr>
<td>SG</td>
<td>Test Guideline</td>
</tr>
<tr>
<td>NIOSH</td>
<td>National Institute for Occupational Safety and Health</td>
</tr>
<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
</tr>
<tr>
<td>NTP</td>
<td>National Toxicology Program</td>
</tr>
<tr>
<td>HMIS</td>
<td>Hazardous Material Information System</td>
</tr>
<tr>
<td>CAS No.</td>
<td>Chemical Abstract Service Registration Number</td>
</tr>
<tr>
<td>EC No.</td>
<td>European Commission Registration Number</td>
</tr>
<tr>
<td>EC Index No.</td>
<td>European Commission Index Number</td>
</tr>
<tr>
<td>OECD</td>
<td>The Organisation for Economic Co-operation and Development</td>
</tr>
<tr>
<td>GHS</td>
<td>The Globally Harmonized System of Classification and Labelling</td>
</tr>
<tr>
<td>APF</td>
<td>Assigned Protection Factor</td>
</tr>
</tbody>
</table>

Other information: Prepared by safety and environmental affairs.

Full text of H- and EUH-statements:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carc. 1A</td>
<td>Carcinogenicity, Category 1A</td>
</tr>
<tr>
<td>STOT RE 1</td>
<td>Specific target organ toxicity — Repeated exposure, Category 1</td>
</tr>
<tr>
<td>STOT RE 2</td>
<td>Specific target organ toxicity — Repeated exposure, Category 2</td>
</tr>
<tr>
<td>H350</td>
<td>May cause cancer.</td>
</tr>
<tr>
<td>H372</td>
<td>Causes damage to organs through prolonged or repeated exposure.</td>
</tr>
<tr>
<td>H373</td>
<td>May cause damage to organs through prolonged or repeated exposure.</td>
</tr>
</tbody>
</table>

SDS EU (REACH Annex II) - Custom

The information contained in this document has been gathered from reference materials and/or Gelest, Inc. test data and is to the best knowledge and belief of Gelest, Inc. accurate and reliable. Such information is offered solely for your consideration, investigation and verification. It is not suggested or guaranteed that the hazard precautions or procedures described are the only ones which exist. Gelest, Inc. makes no warranties, express or implied, with respect to the use of such information and assumes no responsibility therefore. Information on this safety data sheet is not intended to constitute a basis for product specifications.

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