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

1.1. Product identifier

Product form : Substance
Physical state : Solid
Substance name : DIATOMACEOUS EARTH, calcined
Product code : SID2754.2
Formula : SiO2
Synonyms : SILICON DIOXIDE, DIATOMACEOUS; DIATOMACEOUS EARTH; KIESELGUHR, SODA ASH, FLUX CALCINED
Chemical family : INORGANIC SILICATE

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@geleste.de - www.geleste.de

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
Specific target organ toxicity — Repeated exposure, Category 1
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]

Hazard pictograms (CLP) :

Signal word (CLP) : Danger
Hazard statements (CLP) :
H350 - May cause cancer.
H372 - Causes damage to organs through prolonged or repeated exposure.
Precautionary statements (CLP) :
P202 - Do not handle until all safety precautions have been read and understood.
DIATOMACEOUS EARTH, calcined
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P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P260 - Do not breathe dust.
P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P314 - Get medical advice/attention if you feel unwell.

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>Diatomaceous earth, calcined</td>
<td>(CAS-No.: 68855-54-9 EC-No.: 272-489-0)</td>
<td>90 - 100</td>
<td>Not classified</td>
</tr>
<tr>
<td>Cristobalite silica</td>
<td>(CAS-No.: 14464-46-1 EC-No.: 238-455-4)</td>
<td>0 - 10</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. Immediately call a POISON CENTER/doctor.

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. May cause cancer.

Symptoms/effects after inhalation: May cause irritation to the respiratory tract. Exposure to respirable silica can cause silicosis, a fibrosis (scarring) of the lungs.

Symptoms/effects after skin contact: May cause skin irritation. There is evidence that silica can exacerbate scleroderma, an immune disorder of the skin.

Symptoms/effects after eye contact: May cause eye irritation. May cause abrasion of cornea.

Symptoms/effects after ingestion: May be harmful if swallowed.

Chronic symptoms: Silicosis can occur after many years of of exposure to relatively low levels of airborne respirable silica. IARC has concluded that there was sufficient evidence of the carcinogenicity of respirable crystalline silica to experimental animals, and that carcinogenicity of respirable silica to humans is anticipated.

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.

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
Additional hazards when processed: While not flammable, the ability of particulate silica to generate static charge may present a hazard when used in combination with flammable liquids.
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. Do not breathe dust. Avoid dust formation. 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.

7.3. Specific end use(s)
No additional information available

SECTION 8: Exposure controls/personal protection
8.1. Control parameters

<table>
<thead>
<tr>
<th>Diatomaceous earth, calcined (68855-54-9)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>MAK (mg/m³)</td>
</tr>
<tr>
<td>Germany</td>
<td>TRGS 900 Occupational exposure limit value (mg/m³)</td>
</tr>
<tr>
<td>Switzerland</td>
<td>MAK (mg/m³)</td>
</tr>
<tr>
<td>Ireland</td>
<td>OEL (8 hours ref) (mg/m³)</td>
</tr>
<tr>
<td>Ireland</td>
<td>OEL (15 min ref) (mg/m3)</td>
</tr>
<tr>
<td>Poland</td>
<td>NDS (mg/m³)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cristobalite silica (14464-46-1)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy - Portugal - USA ACGIH</td>
<td>ACGIH TWA (mg/m³)</td>
</tr>
<tr>
<td>USA OSHA</td>
<td>OSHA PEL (TWA) (mg/m³)</td>
</tr>
</tbody>
</table>
DIATOMACEOUS EARTH, calcined
Safety Data Sheet

8.2. 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:**
Chemical goggles. 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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Powder</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>60.09 g/mol</td>
</tr>
<tr>
<td>Colour</td>
<td>White</td>
</tr>
<tr>
<td>Odour</td>
<td>No data available</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>Refractive index</td>
<td>No additional information available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>1610 °C</td>
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<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>2230 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>&lt; 0.01 mm Hg @ 20°C</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
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<tr>
<td>Relative density</td>
<td>2.3</td>
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<tr>
<td>% Volatiles</td>
<td>0 %</td>
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<tr>
<td>Solubility</td>
<td>Insoluble in water.</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Kow</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>No data available</td>
</tr>
</tbody>
</table>

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.
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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

<table>
<thead>
<tr>
<th>Acute toxicity</th>
<th>Not classified</th>
</tr>
</thead>
</table>

**Diatomaceous earth, calcined (68855-54-9)**

- LD50 oral rat: > 5000 mg/kg
- Skin corrosion/irritation: Not classified
- Serious eye damage/irritation: Not classified
- Respiratory or skin sensitisation: Not classified
- Germ cell mutagenicity: Not classified
- Germ cell mutagenicity: May cause cancer.

**Cristobalite silica (14464-46-1)**

- IARC group: 3 - Not classifiable

**Diatomaceous earth, calcined (68855-54-9)**

- IARC group: 3 - Not classifiable

**Cristobalite silica (14464-46-1)**

- IARC group: 1 - Carcinogenic to humans

- Reproductive toxicity: Not classified
- STOT-single exposure: Not classified
- STOT-repeated exposure: Causes damage to organs through prolonged or repeated exposure.
- Aspiration hazard: Not classified
- Symptoms/effects after inhalation: May cause irritation to the respiratory tract. Exposure to respirable silica can cause silicosis, a fibrosis (scarring) of the lungs.
- Symptoms/effects after skin contact: May cause skin irritation. There is evidence that silica can exacerbate scleroderma, an immune disorder of the skin.
- Symptoms/effects after eye contact: May cause eye irritation. May cause abrasion of cornea.
- Symptoms/effects after ingestion: May be harmful if swallowed.
- Chronic symptoms: Silicosis can occur after many years of exposure to relatively low levels of airborne respirable silica. IARC has concluded that there was sufficient evidence of the carcinogenicity of respirable crystalline silica to experimental animals, and that carcinogenicity of respirable silica to humans is anticipated.

SECTION 12: Ecological information

12.1. Toxicity

<table>
<thead>
<tr>
<th>Acute aquatic toxicity</th>
<th>Not classified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic aquatic toxicity</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability
No additional information available

12.3. Bioaccumulative potential

**Diatomaceous earth, calcined (68855-54-9)**

- 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

<table>
<thead>
<tr>
<th>13.1. Waste treatment methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sewage disposal recommendations</td>
</tr>
<tr>
<td>Product/Packaging disposal recommendations</td>
</tr>
<tr>
<td>Ecology - waste materials</td>
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</tbody>
</table>

### SECTION 14: Transport information

<table>
<thead>
<tr>
<th>14.1. UN number</th>
</tr>
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<tbody>
<tr>
<td>In accordance with ADR / RID / IMDG / IATA / ADN</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>14.1. UN number (ADR)</th>
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</thead>
<tbody>
<tr>
<td>UN-No. (IMDG)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>UN-No. (IATA)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>UN-No. (ADN)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>UN-No. (RID)</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.2. UN proper shipping name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper Shipping Name (ADR)</td>
</tr>
<tr>
<td>Proper Shipping Name (IMDG)</td>
</tr>
<tr>
<td>Proper Shipping Name (IATA)</td>
</tr>
<tr>
<td>Proper Shipping Name (ADN)</td>
</tr>
<tr>
<td>Proper Shipping Name (RID)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.3. Transport hazard class(es)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR</td>
</tr>
<tr>
<td>IMDG</td>
</tr>
<tr>
<td>IATA</td>
</tr>
<tr>
<td>ADN</td>
</tr>
<tr>
<td>RID</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.4. Packing group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packing group (ADR)</td>
</tr>
<tr>
<td>Packing group (IMDG)</td>
</tr>
<tr>
<td>Packing group (IATA)</td>
</tr>
<tr>
<td>Packing group (ADN)</td>
</tr>
<tr>
<td>Packing group (RID)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.5. Environmental hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dangerous for the environment</td>
</tr>
<tr>
<td>Marine pollutant</td>
</tr>
<tr>
<td>Other information</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.6. Special precautions for user</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Overland transport</td>
</tr>
<tr>
<td>- Transport by sea</td>
</tr>
<tr>
<td>- Air transport</td>
</tr>
</tbody>
</table>

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- 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
DIATOMACEOUS EARTH, calcined is not on the REACH Candidate List
DIATOMACEOUS EARTH, calcined is not on the REACH Annex XIV List
DIATOMACEOUS EARTH, calcined 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: 0 %

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-list van kankerverwekkende stoffen: DIATOMACEOUS EARTH, calcined is listed
SZW-list van mutagene stoffen: DIATOMACEOUS EARTH, calcined is 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:

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

Other information: Prepared by safety and environmental affairs.

Full text of H- and EUH-statements:

Carc. 1A: Carcinogenicity, Category 1A
STOT RE 1: Specific target organ toxicity — Repeated exposure, Category 1
H350: May cause cancer.
H372: Causes damage to organs through prolonged or repeated exposure.

Print date: 11/04/2019
EN (English) SDS ID: SID2754.2
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