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

1.1. Product identifier
Product form: Substance
Physical state: Solid
Substance name: LITHIUM TRIMETHYLSILANOLATE
Product code: SIL6469.7
Formula: C3H9LiOSi
Synonyms: LITHIUM TRIMETHYLSILOXIDE; TRIMETHYLSILANOL, LITHIUM SALT
Chemical family: ORGANOSILANE

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]
Skin corrosion/irritation, Category 1B H314
Serious eye damage/eye irritation, Category 1 H318
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation H335
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]
Signal word (CLP): Danger
Hazard pictograms (CLP):

Signal statements (CLP):
H314 - Causes severe skin burns and eye damage.
H335 - May cause respiratory irritation.

Print date: 10/04/2019 EN (English) SDS ID: SIL6469.7 1/7
Precautionary statements (CLP):
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P260 - Do not breathe dust.
P264 - Wash hands thoroughly after handling.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER or doctor/physician.

2.3. Other hazards
No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

<table>
<thead>
<tr>
<th>Substance type</th>
<th>Name</th>
<th>CAS-No.</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-constituent</td>
<td>Lithium trimethylsilanolate</td>
<td>2004-14-0</td>
<td>(CAS-No.) 2004-14-0</td>
<td>&gt; 95</td>
<td>Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335</td>
</tr>
<tr>
<td></td>
<td>Lithium hydroxide</td>
<td></td>
<td>(CAS-No.) 1310-65-2</td>
<td>&lt; 3</td>
<td>Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Inhalation:dust,mist), H331 Skin Corr. 1B, H314 Eye Dam. 1, H318</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. Get medical advice/attention.

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

First-aid measures after ingestion:
Never give anything by mouth to an unconscious person. Give a demulcent such as milk, olive oil, or margarine in small amounts, up to two or three tablespoons. Get medical advice/attention.

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

Symptoms/effects:
Causes severe skin burns and eye damage.

Symptoms/effects after inhalation:
Causes respiratory irritation. Inhalation will cause sneezing, irritation and burns.

Symptoms/effects after skin contact:
Causes (severe) skin burns. If skin and air are dry, powder on skin may not cause irritation or burns. Worker will notice a slippery feeling on washing. However, if moisture is present, the powder can cause severe burns.

Symptoms/effects after eye contact:
Causes serious eye damage.

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

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:
Foam. Carbon dioxide. Dry chemical.

Unsuitable extinguishing media:
Water.

5.2. Special hazards arising from the substance or mixture
Fire hazard:
Combustible solid. Irritating fumes and caustic vapors may develop when material is exposed to elevated temperatures or open flame.
5.3. **Advice for firefighters**

**Firefighting instructions**: Do not enter fire area without proper protective equipment, including respiratory protection. Avoid contact with skin and eyes. Do not breathe dust.

**Protection during firefighting**: Exercise caution when fighting any chemical fire.

---

**SECTION 6: Accidental release measures**

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

**General measures**: Remove ignition sources. Use special care to avoid static electric charges.

**6.1.1. For non-emergency personnel**

**Emergency procedures**: Evacuate unnecessary personnel.

**6.1.2. For emergency responders**

**Protective equipment**: Equip cleanup crew with proper 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**

**Methods for cleaning up**: Ventilate area. Eliminate ignition sources. Sweep or shovel spills into appropriate container for disposal. Use only non-sparking tools.

---

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**: Avoid contact with skin and eyes. Do not breathe dust. Provide local exhaust or general room ventilation to minimize exposure to dust. Use only non-sparking tools.

**Hygiene measures**: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

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

**Technical measures**: Ground/bond container and receiving equipment.

**Storage conditions**: Keep container tightly closed. Store under dry nitrogen or argon in sealed containers.


**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>Lithium hydroxide (1310-65-2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
</tr>
<tr>
<td>Ireland</td>
</tr>
</tbody>
</table>

---

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 or face shield. Contact lenses should not be worn

**Skin and body protection**: Wear suitable protective clothing. Long-sleeved fire-resistant lab uniform or coverall is recommended.

**Respiratory protection**: NIOSH-certified dust and mist (orange cartridge) respirator.
LITHIUM TRIMETHYLSILANOLATE
Safety Data Sheet

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>Solid</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>96.13 g/mol</td>
</tr>
<tr>
<td>Colour</td>
<td>White</td>
</tr>
<tr>
<td>Odour</td>
<td>Slight</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>&gt; 140 °C degrades</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 65 °C</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>Combustible solid</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble in water. Reacts with 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 under nitrogen or argon in sealed containers.

10.3. Possibility of hazardous reactions

Material decomposes slowly in contact with moist air and rapidly in contact with water, possibly igniting.

10.4. Conditions to avoid

Heat. Open flame. Sparks.

10.5. Incompatible materials


10.6. Hazardous decomposition products


SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity: Not classified

<table>
<thead>
<tr>
<th>Lithium hydroxide (1310-65-2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
</tr>
<tr>
<td>LC50 inhalation rat (mg/l)</td>
</tr>
<tr>
<td>ATE CLP (oral)</td>
</tr>
<tr>
<td>ATE CLP (dust,mist)</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
</tr>
</tbody>
</table>
LITHIUM TRIMETHYLSILANOLATE
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Respiratory or skin sensitisation: Not classified
Germ cell mutagenicity: Not classified
Carcinogenicity: Not classified
Reproductive toxicity: Not classified
STOT-single exposure: May cause respiratory irritation.
STOT-repeated exposure: Not classified
Aspiration hazard: Not classified
Symptoms/effects after inhalation: May cause respiratory irritation. Inhalation will cause sneezing, irritation and burns.
Symptoms/effects after skin contact: Causes (severe) skin burns. If skin and air are dry, powder on skin may not cause irritation or burns. Worker will notice a slippery feeling on washing. However, if moisture is present, the powder can cause severe burns.
Symptoms/effects after eye contact: Causes serious eye damage.
Symptoms/effects after ingestion: May be harmful if swallowed.
Reason for classification: Expert judgment

SECTION 12: Ecological information

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

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
Other adverse effects: This substance may be hazardous to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Waste treatment methods: Treat quantities of 1000 grams or less by careful addition of dry isopropanol under controlled conditions in an exhausted area. Solution will be caustic. The solution can be incinerated.

Product/Packaging disposal recommendations: 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
Proper Shipping Name (ADN): Not applicable
Proper Shipping Name (RID): Not applicable

14.3. Transport hazard class(es)
ADR
LITHIUM TRIMETHYLSILANOLATE
Safety Data Sheet

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
  No data available
- Transport by sea
  No data available
- Air transport
  No data available
- 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
LITHIUM TRIMETHYLSILANOLATE is not on the REACH Candidate List
LITHIUM TRIMETHYLSILANOLATE is not on the REACH Annex XIV List
LITHIUM TRIMETHYLSILANOLATE 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.

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)
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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
Classification remarks: Emergency management guidelines for the storage of flammable liquids must be followed
Danish National Regulations: 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
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:
Acute Tox. 3 (Inhalation: dust,mist): Acute toxicity (inhalation:dust,mist) Category 3
Acute Tox. 3 (Oral): Acute toxicity (oral), Category 3
Eye Dam. 1: Serious eye damage/eye irritation, Category 1
Skin Corr. 1B: Skin corrosion/irritation, Category 1B
STOT SE 3: Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H301: Toxic if swallowed.
H314: Causes severe skin burns and eye damage.
H318: Causes serious eye damage.
H331: Toxic if inhaled.
H335: May cause respiratory irritation.

SDS EU (REACH Annex II) - Custom
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