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

1.1. Product identifier

- **Product form**: Mixture
- **Physical state**: Liquid
- **Product name**: LITHIUM (TRIMETHYLSILYL)ACETYLIDE, 0.5M in tetrahydrofuran
- **Product code**: SIL6470.0
- **Formula**: C₅H₉LiSi
- **Synonyms**: LITHIUM ETHYNYLTRIMETHYLSILANE in TETRAHYDROFURAN
- **Chemical family**: ORGANOSILANE IN SOLVENT

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]**
  - Flammable liquids, Category 2: H225
  - Skin corrosion/irritation, Category 1B: H314
  - Serious eye damage/eye irritation, Category 1: H318
  - Carcinogenicity, Category 2: H351
  - Specific target organ toxicity — Single exposure, Category 3: H335
  - Respiratory tract irritation
  - 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)**: GHS02, GHS05, GHS07, GHS08
Signal word (CLP) : Danger
Hazardous ingredients : Tetrahydrofuran
Hazard statements (CLP) : H225 - Highly flammable liquid and vapour.
H314 - Causes severe skin burns and eye damage.
H335 - May cause respiratory irritation.
H351 - Suspected of causing cancer.
Precautionary statements (CLP) : P202 - Do not handle until all safety precautions have been read and understood.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P264 - Ground/bond container and receiving equipment.
P217 - Do not breathe dusts or fumes.
P310 - Immediately call a POISON CENTER or doctor/physician.
EUH-statements : EUH019 - May form explosive peroxides.

2.3. Other hazards
No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures

<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>Tetrahydrofuran</td>
<td>(CAS-No.) 109-99-9 (EC-No.) 203-726-8 (EC Index-No.) 603-025-00-0</td>
<td>85 - 90</td>
<td>Flam. Liq. 2, H225 Eye Irrit. 2, H319 Carc. 2, H315 STOT SE 3, H335</td>
</tr>
<tr>
<td>Lithium (trimethylsilyl)acetylide</td>
<td>(CAS-No.) 54655-07-1</td>
<td>10 - 15</td>
<td>Flam. Sol. 2, H228 Skin Corr. 1B, H314 Eye Dam. 1, H318</td>
</tr>
<tr>
<td>Inhibitors (hindered phenol and/or hydroquinone derivatives)</td>
<td></td>
<td>&lt; 0.05</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

Specific concentration limits:

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>Specific concentration limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrahydrofuran</td>
<td>(CAS-No.) 109-99-9 (EC-No.) 203-726-8 (EC Index-No.) 603-025-00-0</td>
<td>( 25 &lt;= C &lt; 100) Eye Irrit. 2, H319 ( 25 &lt;= C &lt; 100) STOT SE 3, H335</td>
</tr>
</tbody>
</table>

Full text of H-statements: see section 16

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 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. Get medical advice/attention if you feel unwell.

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

Symptoms/effects : Causes severe skin burns and eye damage. Suspected of causing cancer.
Symptoms/effects after inhalation : May cause respiratory irritation. Inhalation will cause sneezing, irritation and burns.
Symptoms/effects after skin contact : Causes (severe) skin burns. Worker will notice a slippery feeling on washing.
Symptoms/effects after eye contact : Causes serious eye damage.
Symptoms/effects after ingestion : May be harmful if swallowed.
Chronic symptoms : TETRAHYDROFURAN: Mildly toxic by inhalation. Mutagenic data has been reported. Reported as causing injury to liver and kidneys.
4.3. Indication of any immediate medical attention and special treatment needed
No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media
Unsuitable extinguishing media: Avoid water spray as flammable gases will be generated.

5.2. Special hazards arising from the substance or mixture
Fire hazard: Highly flammable liquid and vapour. Irritating fumes and caustic vapors may develop when material is exposed to elevated temperatures or open flame.
Explosion hazard: May form flammable/explosive vapour-air mixture.

5.3. Advice for firefighters
Firefighting instructions: Exercise caution when fighting any chemical fire.
Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection. Avoid all eye and skin contact and do not breathe vapour and mist.
Other information: Lithium trimethylsilylacetylide is a flammable solid.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
General measures: Eliminate every possible source of ignition. Use special care to avoid static electric charges.

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".
Emergency procedures: Ventilate area.

6.2. Environmental precautions
Prevent entry to sewers and public waters. Notify authorities if liquid 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: Clean up any spills as soon as possible, using an absorbent material to collect it. 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
Additional hazards when processed: Handle empty containers with care because residual vapours are flammable. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Precautions for safe handling: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid all eye and skin contact and do not breathe vapour and mist. Ground/bond container and receiving equipment. Take precautionary measures against static discharge. Use only outdoors or in a well-ventilated area. Use only non-sparking tools.
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
Technical measures: Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical equipment.
Storage conditions: Keep container tightly closed. Store under dry nitrogen or argon in sealed containers below 25°C. Keep in a cool place. Store locked up.
Storage area: Store in a well-ventilated place. Store away from heat.

7.3. Specific end use(s)
No additional information available
### LITHIUM (TRIMETHYLSILYL)ACETYLIDE, 0.5M in tetrahydrofuran

Safety Data Sheet

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Control Parameter</th>
<th>Value (mg/m³)</th>
<th>Value (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU</td>
<td>IOELV TWA</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Austria</td>
<td>MAK</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Belgium</td>
<td>Limit value</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Bulgaria</td>
<td>OEL TWA</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Cyprus</td>
<td>OEL TWA</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>VLE</td>
<td>300 (restrictive limit)</td>
<td>100 ppm (restrictive limit)</td>
</tr>
<tr>
<td>Germany</td>
<td>TRGS 900 Occupational exposure limit value</td>
<td>150 mg/m³ (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)</td>
<td>50 ppm (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)</td>
</tr>
<tr>
<td>Gibraltar</td>
<td>Eight hours mg/m³</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Greece</td>
<td>OEL TWA</td>
<td>590</td>
<td></td>
</tr>
<tr>
<td>Greece</td>
<td>OEL STEL</td>
<td>735</td>
<td></td>
</tr>
<tr>
<td>Italy</td>
<td>OEL TWA</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Latvia</td>
<td>OEL TWA</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>USA IDLH</td>
<td>US IDLH</td>
<td>2000 (10% LEL)</td>
<td></td>
</tr>
<tr>
<td>USA NIOSH</td>
<td>NIOSH REL (TWA)</td>
<td>590</td>
<td></td>
</tr>
<tr>
<td>USA NIOSH</td>
<td>NIOSH REL (TWA)</td>
<td>200 ppm</td>
<td></td>
</tr>
<tr>
<td>USA NIOSH</td>
<td>NIOSH REL (STEL)</td>
<td>735 mg/m³</td>
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</tr>
<tr>
<td>USA NIOSH</td>
<td>NIOSH REL (STEL)</td>
<td>250 ppm</td>
<td></td>
</tr>
<tr>
<td>USA OSHA</td>
<td>OSHA PEL (TWA)</td>
<td>590 mg/m³</td>
<td></td>
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</table>
### Tetrahydrofuran (109-99-9)

<table>
<thead>
<tr>
<th>Country</th>
<th>Standard</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>USA OSHA</td>
<td>OSHA PEL (TWA) (ppm)</td>
<td>200 ppm</td>
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<tr>
<td>Spain</td>
<td>VLA-ED (mg/m³)</td>
<td>150 mg/m³ (indicative limit value)</td>
</tr>
<tr>
<td>Spain</td>
<td>VLA-ED (ppm)</td>
<td>50 ppm (indicative limit value)</td>
</tr>
<tr>
<td>Spain</td>
<td>VLA-EC (mg/m³)</td>
<td>300 mg/m³</td>
</tr>
<tr>
<td>Spain</td>
<td>VLA-EC (ppm)</td>
<td>100 ppm</td>
</tr>
<tr>
<td>Switzerland</td>
<td>KZGW (mg/m³)</td>
<td>300 mg/m³</td>
</tr>
<tr>
<td>Switzerland</td>
<td>KZGW (ppm)</td>
<td>100 ppm</td>
</tr>
<tr>
<td>Switzerland</td>
<td>MAK (mg/m³)</td>
<td>150 mg/m³</td>
</tr>
<tr>
<td>Switzerland</td>
<td>MAK (ppm)</td>
<td>50 ppm</td>
</tr>
<tr>
<td>Netherlands</td>
<td>Grenswaarde TGG 8H (mg/m³)</td>
<td>300 mg/m³</td>
</tr>
<tr>
<td>Netherlands</td>
<td>Grenswaarde TGG 15MIN (mg/m³)</td>
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</tr>
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<td>United Kingdom</td>
<td>WEL TWA (mg/m³)</td>
<td>150 mg/m³</td>
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<tr>
<td>United Kingdom</td>
<td>WEL TWA (ppm)</td>
<td>50 ppm</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>WEL STEL (mg/m³)</td>
<td>300 mg/m³</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>WEL STEL (ppm)</td>
<td>100 ppm</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>Expoziční limity (PEL) (mg/m³)</td>
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</tr>
<tr>
<td>Denmark</td>
<td>Grænseværdie (langvarig) (mg/m³)</td>
<td>150 mg/m³</td>
</tr>
<tr>
<td>Denmark</td>
<td>Grænseværdie (langvarig) (ppm)</td>
<td>50 ppm</td>
</tr>
<tr>
<td>Finland</td>
<td>HTP-arvo (8h) (mg/m³)</td>
<td>150 mg/m³</td>
</tr>
<tr>
<td>Finland</td>
<td>HTP-arvo (8h) (ppm)</td>
<td>50 ppm</td>
</tr>
<tr>
<td>Finland</td>
<td>HTP-arvo (15 min) (mg/m³)</td>
<td>300 mg/m³</td>
</tr>
<tr>
<td>Finland</td>
<td>HTP-arvo (15 min) (ppm)</td>
<td>100 ppm</td>
</tr>
<tr>
<td>Hungary</td>
<td>AK-érték</td>
<td>150 mg/m³</td>
</tr>
<tr>
<td>Hungary</td>
<td>CK-érték</td>
<td>300 mg/m³</td>
</tr>
<tr>
<td>Ireland</td>
<td>OEL (8 hours ref) (mg/m³)</td>
<td>150 mg/m³</td>
</tr>
<tr>
<td>Ireland</td>
<td>OEL (8 hours ref) (ppm)</td>
<td>50 ppm</td>
</tr>
<tr>
<td>Ireland</td>
<td>OEL (15 min ref) (mg/m³)</td>
<td>300 mg/m³</td>
</tr>
<tr>
<td>Ireland</td>
<td>OEL (15 min ref) (ppm)</td>
<td>100 ppm</td>
</tr>
<tr>
<td>Lithuania</td>
<td>IPRV (mg/m³)</td>
<td>150 mg/m³</td>
</tr>
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<td>Lithuania</td>
<td>IPRV (ppm)</td>
<td>50 ppm</td>
</tr>
<tr>
<td>Lithuania</td>
<td>TPRV (mg/m³)</td>
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</tr>
<tr>
<td>Lithuania</td>
<td>TPRV (ppm)</td>
<td>100 ppm</td>
</tr>
<tr>
<td>Malta</td>
<td>OEL TWA (mg/m³)</td>
<td>150 mg/m³</td>
</tr>
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<td>Malta</td>
<td>OEL TWA (ppm)</td>
<td>50 ppm</td>
</tr>
<tr>
<td>Malta</td>
<td>OEL STEL (mg/m³)</td>
<td>300 mg/m³</td>
</tr>
<tr>
<td>Malta</td>
<td>OEL STEL (ppm)</td>
<td>100 ppm</td>
</tr>
<tr>
<td>Norway</td>
<td>Grenseverdier (AN) (mg/m³)</td>
<td>150 mg/m³</td>
</tr>
<tr>
<td>Norway</td>
<td>Grenseverdier (AN) (ppm)</td>
<td>50 ppm</td>
</tr>
<tr>
<td>Norway</td>
<td>Grenseverdier (Korttidsverdi) (mg/m³)</td>
<td>150 mg/m³</td>
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<tr>
<td>Norway</td>
<td>Grenseverdier (Korttidsverdi) (ppm)</td>
<td>50 ppm</td>
</tr>
<tr>
<td>Poland</td>
<td>NDS (mg/m³)</td>
<td>150 mg/m³</td>
</tr>
<tr>
<td>Poland</td>
<td>NDSCh (mg/m³)</td>
<td>300 mg/m³</td>
</tr>
<tr>
<td>Romania</td>
<td>OEL TWA (mg/m³)</td>
<td>150 mg/m³</td>
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<td>Romania</td>
<td>OEL TWA (ppm)</td>
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<td>300 mg/m³</td>
</tr>
<tr>
<td>Romania</td>
<td>OEL STEL (ppm)</td>
<td>100 ppm</td>
</tr>
<tr>
<td>Slovakia</td>
<td>NPHV (prieberná) (mg/m³)</td>
<td>150 mg/m³</td>
</tr>
<tr>
<td>Slovakia</td>
<td>NPHV (prieberná) (ppm)</td>
<td>50 ppm</td>
</tr>
<tr>
<td>Slovakia</td>
<td>NPHV (Hrančíná) (mg/m³)</td>
<td>300 mg/m³</td>
</tr>
<tr>
<td>Sweden</td>
<td>nivåränsvärde (NVG) (mg/m³)</td>
<td>150 mg/m³</td>
</tr>
<tr>
<td>Sweden</td>
<td>nivåränsvärde (NVG) (ppm)</td>
<td>50 ppm</td>
</tr>
</tbody>
</table>
LITHIUM (TRIMETHYLSILYL)ACETYLIDE, 0.5M in tetrahydrofuran
Safety Data Sheet

<table>
<thead>
<tr>
<th>Tetrahydrofuran (109-99-9)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sweden</strong></td>
<td>kortidsvärde (KTV) (mg/m³)</td>
</tr>
<tr>
<td><strong>Sweden</strong></td>
<td>kortidsvärde (KTV) (ppm)</td>
</tr>
<tr>
<td><strong>Canada (Quebec)</strong></td>
<td>VEMP (mg/m³)</td>
</tr>
<tr>
<td><strong>Canada (Quebec)</strong></td>
<td>VEMP (ppm)</td>
</tr>
<tr>
<td><strong>Australia</strong></td>
<td>TWA (mg/m³)</td>
</tr>
<tr>
<td><strong>Australia</strong></td>
<td>TWA (ppm)</td>
</tr>
<tr>
<td><strong>Portugal</strong></td>
<td>OEL TWA (mg/m³)</td>
</tr>
<tr>
<td><strong>Portugal</strong></td>
<td>OEL TWA (ppm)</td>
</tr>
<tr>
<td><strong>Portugal</strong></td>
<td>OEL STEL (mg/m³)</td>
</tr>
<tr>
<td><strong>Portugal</strong></td>
<td>OEL STEL (ppm)</td>
</tr>
<tr>
<td><strong>Portugal</strong></td>
<td>OEL chemical category (PT)</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:
Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified combination organic vapor - gas (yellow 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>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Liquid,</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>104.15 g/mol</td>
</tr>
<tr>
<td>Colour</td>
<td>Clear to hazy,</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>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>&lt; 0 °C</td>
</tr>
<tr>
<td>Boiling point</td>
<td>&gt; 66 °C initial (THF)</td>
</tr>
<tr>
<td>Flash point</td>
<td>-14 °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>Highly flammable liquid and vapour.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>144 mm Hg @ 15°C (THF)</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>2.5 (THF)</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.829</td>
</tr>
<tr>
<td>% Volatiles</td>
<td>&gt; 85%</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in water. Reacts rapidly with water.</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
</tbody>
</table>
LITHIUM (TRIMETHYLSILYL)ACETYLIDE, 0.5M in tetrahydrofuran
Safety Data Sheet

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: 1.8 - 11.6 vol % (lower; upper: THF)

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

Tetrahydrofuran (109-99-9)
LD50 oral rat: 1650 mg/kg
LC50 inhalation rat (ppm): 21000 ppm (Exposure time: 3 h)
ATE CLP (oral): 1650 mg/kg bodyweight

Skin corrosion/irritation: Causes severe skin burns and eye damage.
Serious eye damage/irritation: Causes serious eye damage.
Respiratory or skin sensitisation: Not classified
Germ cell mutagenicity: Not classified
Carcinogenicity: Suspected of causing cancer.

Tetrahydrofuran (109-99-9)
National Toxicology Program (NTP) Status: 1 - Evidence of Carcinogenicity

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. Worker will notice a slippery feeling on washing.
Symptoms/effects after eye contact: Causes serious eye damage.
Symptoms/effects after ingestion: May be harmful if swallowed.
Chronic symptoms: TETRAHYDROFURAN: Mildly toxic by inhalation. Mutagenic data has been reported. Reported as causing injury to liver and kidneys.
Reason for classification: Expert judgment

SECTION 12: Ecological information

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

Tetrahydrofuran (109-99-9)
LC50 fish 1: 1970 - 2360 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC50 fish 2: 2700 - 3600 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

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12.2. Persistence and degradability
No additional information available

12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Tetrahydrofuran (109-99-9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCF fish 1</td>
</tr>
<tr>
<td>(will not bioconcentrate)</td>
</tr>
<tr>
<td>Log Pow</td>
</tr>
<tr>
<td>0.45 (at 25 °C)</td>
</tr>
</tbody>
</table>

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

Sewage disposal recommendations: Do not dispose of waste into sewer.
Product/Packaging disposal recommendations: Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to licensed waste disposal facility.
Additional information: Handle empty containers with care because residual vapours are flammable.
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) : 2924
- UN-No. (IMDG) : 2924
- UN-No. (IATA) : 2924
- UN-No. (ADN) : 2924
- UN-No. (RID) : 2924

14.2. UN proper shipping name

- Proper Shipping Name (ADR) : FLAMMABLE LIQUID, CORROSIVE, N.O.S.
- Proper Shipping Name (IMDG) : FLAMMABLE LIQUID, CORROSIVE, N.O.S.
- Proper Shipping Name (IATA) : Flammable liquid, corrosive, n.o.s.
- Proper Shipping Name (ADN) : FLAMMABLE LIQUID, CORROSIVE, N.O.S.
- Proper Shipping Name (RID) : FLAMMABLE LIQUID, CORROSIVE, N.O.S.

- Transport document description (ADR) : UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (LITHIUM (TRIMETHYLSILYL)ACETYLIDE, 0.5M in tetrahydrofuran), 3 (8), II, (D/E)
- Transport document description (IMDG) : UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (LITHIUM (TRIMETHYLSILYL)ACETYLIDE, 0.5M in tetrahydrofuran), 3 (8), II
- Transport document description (IATA) : UN 2924 Flammable liquid, corrosive, n.o.s. (LITHIUM (TRIMETHYLSILYL)ACETYLIDE, 0.5M in tetrahydrofuran), 3 (8), II
- Transport document description (ADN) : UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (LITHIUM (TRIMETHYLSILYL)ACETYLIDE, 0.5M in tetrahydrofuran), 3 (8), II
- Transport document description (RID) : UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (LITHIUM (TRIMETHYLSILYL)ACETYLIDE, 0.5M in tetrahydrofuran), 3 (8), II

14.3. Transport hazard class(es)
ADR
- Transport hazard class(es) (ADR) : 3 (8)
- Danger labels (ADR) : 3, 8
LITHIUM (TRIMETHYLSILYL)ACETYLIDE, 0.5M in tetrahydrofuran
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IMDG
Transport hazard class(es) (IMDG) : 3 (8)
Danger labels (IMDG) : 3, 8

IATA
Transport hazard class(es) (IATA) : 3 (8)
Hazard labels (IATA) : 3, 8

ADN
Transport hazard class(es) (ADN) : 3 (8)
Danger labels (ADN) : 3, 8

RID
Transport hazard class(es) (RID) : 3 (8)
Danger labels (RID) : 3, 8

14.4. Packing group
Packing group (ADR) : II
Packing group (IMDG) : II
Packing group (IATA) : II
Packing group (ADN) : II
Packing group (RID) : II

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
Classification code (ADR) : FC
Special provisions (ADR) : 274
Limited quantities (ADR) : 1l
Excepted quantities (ADR) : E2
Packing instructions (ADR) : P001, IBC02
Mixed packing provisions (ADR) : MP19
LITHIUM (TRIMETHYLSILYL)ACETYLIDE, 0.5M in tetrahydrofuran
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| Portable tank and bulk container instructions (ADR) | : T11 |
| Portable tank and bulk container special provisions (ADR) | : TP2, TP27 |
| Tank code (ADR) | : L4BH |
| Vehicle for tank carriage | : FL |
| Transport category (ADR) | : 2 |
| Special provisions for carriage - Operation (ADR) | : S2, S20 |
| Hazard identification number (Kemler No.) | : 338 |
| Orange plates | : 2924 |

Tunnel restriction code (ADR) : D/E

- **Transport by sea**

  Special provisions (IMDG) : 274  
  Limited quantities (IMDG) : 1 L  
  Excepted quantities (IMDG) : E2  
  Packing instructions (IMDG) : P001  
  IBC packing instructions (IMDG) : IBC02  
  Tank instructions (IMDG) : T11  
  Tank special provisions (IMDG) : TP2, TP27  
  EmS-No. (Fire) : F-E  
  EmS-No. (Spillage) : S-C  
  Stowage category (IMDG) : B  
  Stowage and handling (IMDG) : SW2  
  Properties and observations (IMDG) : Causes burns to skin, eyes and mucous membranes.

- **Air transport**

  PCA Excepted quantities (IATA) : E2  
  PCA Limited quantities (IATA) : Y340  
  PCA limited quantity max net quantity (IATA) : 0.5L  
  PCA packing instructions (IATA) : 352  
  PCA max net quantity (IATA) : 1L  
  CAO packing instructions (IATA) : 363  
  CAO max net quantity (IATA) : 5L  
  Special provisions (IATA) : A3  
  ERG code (IATA) : 3CH

- **Inland waterway transport**

  Classification code (ADN) : FC  
  Special provisions (ADN) : 274  
  Limited quantities (ADN) : 1 L  
  Excepted quantities (ADN) : E2  
  Equipment required (ADN) : PP, EP, EX, A  
  Ventilation (ADN) : VE01  
  Number of blue cones/lights (ADN) : 1

- **Rail transport**

  Classification code (RID) : FC  
  Special provisions (RID) : 274  
  Limited quantities (RID) : 1L  
  Excepted quantities (RID) : E2  
  Packing instructions (RID) : P001, IBC02  
  Mixed packing provisions (RID) : MP19  
  Portable tank and bulk container instructions (RID) : T11

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Portable tank and bulk container special provisions (RID): TP2, TP27
Tank codes for RID tanks (RID): L4BH
Transport category (RID): 2
Colis express (express parcels) (RID): CE7
Hazard identification number (RID): 338

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
Contains no REACH substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances
Contains no REACH Annex XIV substances

% Volatiles: > 85%

15.1.2. National regulations

Germany
Reference to AwSV: Water hazard class (WGK) 3, Highly hazardous to water (Classification according to AwSV, Annex 1)
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: Tetrahydrofuran is listed
SZW-lijst van mutagene stoffen: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting gifige stoffen – Borstvoeding: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting gifige stoffen – Vruchtbaarheid: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting gifige stoffen – Ontwikkeling: None of the components are 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
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.
### LITHIUM (TRIMETHYLGLYLSILYL)ACETYLIDE, 0.5M in tetrahydrofuran
Safety Data Sheet

**Full text of H- and EUH-statements:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carc. 2</td>
<td>Carcinogenicity, Category 2</td>
</tr>
<tr>
<td>Eye Dam. 1</td>
<td>Serious eye damage/eye irritation, Category 1</td>
</tr>
<tr>
<td>Eye Irrit. 2</td>
<td>Serious eye damage/eye irritation, Category 2</td>
</tr>
<tr>
<td>Flam. Liq. 2</td>
<td>Flammable liquids, Category 2</td>
</tr>
<tr>
<td>Flam. Sol. 2</td>
<td>Flammable solids, Category 2</td>
</tr>
<tr>
<td>Skin Corr. 1B</td>
<td>Skin corrosion/irritation, Category 1B</td>
</tr>
<tr>
<td>STOT SE 3</td>
<td>Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation</td>
</tr>
<tr>
<td>H225</td>
<td>Highly flammable liquid and vapour.</td>
</tr>
<tr>
<td>H228</td>
<td>Flammable solid.</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation.</td>
</tr>
<tr>
<td>H351</td>
<td>Suspected of causing cancer.</td>
</tr>
<tr>
<td>EUH019</td>
<td>May form explosive peroxides.</td>
</tr>
</tbody>
</table>

**SDS EU (REACH Annex II) - Custom**

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