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

### 1.1. Product identifier

<table>
<thead>
<tr>
<th>Product form</th>
<th>Mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Product name</td>
<td>LITHIUM METHOXIDE, 2.25M in methanol (9-10 wgt %)</td>
</tr>
<tr>
<td>Product code</td>
<td>AKL461</td>
</tr>
<tr>
<td>Formula</td>
<td>CH3LiO</td>
</tr>
<tr>
<td>Synonyms</td>
<td>LITHIUM METHYLATE; METHANOL, LITHIUM SALT</td>
</tr>
<tr>
<td>Chemical family</td>
<td>METAL ALCOHOLATE</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]

<table>
<thead>
<tr>
<th>Class</th>
<th>H Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable liquids, Category 2</td>
<td>H225</td>
</tr>
<tr>
<td>Acute toxicity (oral), Category 3</td>
<td>H301</td>
</tr>
<tr>
<td>Acute toxicity (dermal), Category 3</td>
<td>H311</td>
</tr>
<tr>
<td>Acute toxicity (inhalation:vapour) Category 3</td>
<td>H331</td>
</tr>
<tr>
<td>Skin corrosion/irritation, Category 1B</td>
<td>H314</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation, Category 1</td>
<td>H318</td>
</tr>
<tr>
<td>Specific target organ toxicity — single exposure, Category 1</td>
<td>H370</td>
</tr>
</tbody>
</table>

Adverse physicochemical, human health and environmental effects

No additional information available
LITHIUM METHOXIDE, 2.25M in methanol (9-10 wgt %)
Safety Data Sheet

2.2. Label elements

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

Hazard pictograms (CLP):

Signal word (CLP): Danger

Hazardous ingredients: Methanol; Lithium methoxide

Hazard statements (CLP):
- H225 - Highly flammable liquid and vapour.
- H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled
- H314 - Causes severe skin burns and eye damage.
- H370 - Causes damage to organs.

Precautionary statements (CLP):
- 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.
- P240 - Ground/bond container and receiving equipment.
- P260 - Do not breathe vapours.
- P264 - Wash hands thoroughly after handling.
- 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

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>Methanol</td>
<td>(CAS-No.) 67-56-1 (EC-No.) 200-659-6 (EC Index-No.) 603-001-00-X</td>
<td>&gt; 90</td>
<td>Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation:vapour), H331 STOT SE 1, H370</td>
</tr>
<tr>
<td>Lithium methoxide</td>
<td>(CAS-No.) 865-34-9 (EC-No.) 212-737-7 (EC Index-No.) 603-040-00-2</td>
<td>&gt; 10</td>
<td>Self-heat. 1, H251 Skin Corr. 1B, H314</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>Methanol</td>
<td>(CAS-No.) 67-56-1 (EC-No.) 200-659-6 (EC Index-No.) 603-001-00-X</td>
<td>(3 &lt;=C &lt; 10) STOT SE 2, H371 (10 &lt;=C &lt; 100) STOT SE 1, H370</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. Immediately call a POISON CENTER/doctor.

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

First-aid measures after ingestion: Never give anything by mouth to an unconscious person. Immediately call a POISON CENTER/doctor.
LITHIUM METHOXIDE, 2.25M in methanol (9-10 wgt %)
Safety Data Sheet

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/effects : Causes damage to organs.
Symptoms/effects after skin contact : Toxic in contact with skin. Causes skin irritation. Repeated exposure to this material can result in absorption through skin causing significant health hazard. Worker will notice a slippery feeling on washing.
Symptoms/effects after eye contact : Causes serious eye damage.
Symptoms/effects after ingestion : Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard. Oral toxicity is associated with methanol, the solvent and a hydrolysis product which causes nausea, vomiting, headache, visual effects including blindness. Onset of symptoms may be delayed up to 48 hours.
Chronic symptoms : Methanol may effect the central nervous system resulting in persistent or recurring headaches or impaired vision. The solvent, methanol, probably determines toxicity. Ingestion of methanol can cause blindness and death.

4.3. Indication of any immediate medical attention and special treatment needed
NOTE TO PHYSICIAN: The combination of visual disturbances, metabolic acidosis and formic acid in urine is evidence of methanol poisoning. The therapeutic intravenous administration of ethanol (10 mls/hour) allows methanol to be preferentially oxidized and reduces production of methanol metabolites. Acidity must be treated with intravenous administration of sodium bicarbonate and methanol elimination may be increased by hemodialysis, as indicated. Treatment should be based on blood methanol levels and acid-base balance.

SECTION 5: Firefighting measures
5.1. Extinguishing media
Suitable extinguishing media : Dry chemical. Dry soda ash.
Unsuitable extinguishing media : Water.
5.2. Special hazards arising from the substance or mixture
Fire hazard : Highly flammable liquid and vapour. Irritating fumes and organic acid 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. Protect against caustic dust, smoke and water.
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. Wear pressure demand self-contained breathing apparatus with full facepiece and full protective clothing.

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 : Avoid breathing vapours. 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.
LITHIUM METHOXIDE, 2.25M in methanol (9-10 wgt %)

Safety Data Sheet

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: 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. 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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

|                | EU IOELV TWA (mg/m³) | EU IOELV TWA (ppm) | Austria MAK (mg/m³) | Austria MAK (ppm) | Austria MAK Short time value (mg/m³) | Austria MAK Short time value (ppm) | Belgium Limit value (mg/m³) | Belgium Limit value (ppm) | Belgium Short time value (mg/m³) | Belgium Short time value (ppm) | Bulgaria OEL TWA (mg/m³) | Bulgaria OEL TWA (ppm) | Cyprus OEL TWA (mg/m³) | Cyprus OEL TWA (ppm) | France VLE (mg/m³) | France VLE (ppm) | France VME (mg/m³) | France VME (ppm) | Germany TRGS 900 Occupational exposure limit value (mg/m³) | Germany TRGS 900 Occupational exposure limit value (ppm) | Germany TRGS 903 Biological limit value | Gibraltar Eight hours mg/m3 | Gibraltar Eight hours ppm | Greece OEL TWA (mg/m³) | Greece OEL TWA (ppm) | Greece OEL STEL (mg/m³) | Greece OEL STEL (ppm) | Italy - Portugal - USA ACGIH ACGIH TWA (ppm) | Italy - Portugal - USA ACGIH ACGIH STEL (ppm) | Italy OEL TWA (mg/m³) | Italy OEL TWA (ppm) | Latvia OEL TWA (mg/m³) | Latvia OEL TWA (ppm) |
|----------------|----------------------|-------------------|---------------------|-------------------|-------------------------------------|-----------------------------------|-------------------------------|-------------------------------|---------------------------------|-------------------------------|------------------------|---------------------|----------------------|-----------------------|-----------------|-------------------|-----------------|-------------------|-------------------------------|-------------------------------|---------------------|---------------------|----------------------|------------------|---------------------|---------------------|------------------|------------------|---------------------|-----------------|------------------|
| Methanol (67-56-1) | 260 mg/m³             | 200 ppm           | 260 mg/m³           | 200 ppm           | 1040 mg/m³                          | 800 ppm                           | 266 mg/m³                      | 200 ppm                       | 333 mg/m³                       | 250 ppm                       | 260 mg/m³              | 200 ppm               | 260 mg/m³           | 200 ppm               | 1300 mg/m³         | 1000 ppm          | 260 mg/m³ (restrictive limit) | 200 ppm (restrictive limit) | 270 mg/m³ (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed) | 200 ppm (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed) | 30 mg/l (Medium; urine - Time: end of shift - Parameter: Methanol) | 200 ppm                       | 260 mg/m³              | 260 mg/m³           | 325 mg/m³              | 250 ppm               | 200 ppm               | 250 ppm             | 200 ppm           | 260 mg/m³              | 260 mg/m³           |
# LITHIUM METHOXIDE, 2.25M in methanol (9-10 wgt %)

Safety Data Sheet

<table>
<thead>
<tr>
<th>Methanol (67-56-1)</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Latvia</td>
<td>OEL TWA (ppm)</td>
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<tr>
<td>USA IDLH</td>
<td>US IDLH (ppm)</td>
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<tr>
<td>USA NIOSH</td>
<td>NIOSH REL (TWA) (mg/m³)</td>
</tr>
<tr>
<td>USA NIOSH</td>
<td>NIOSH REL (TWA) (ppm)</td>
</tr>
<tr>
<td>USA NIOSH</td>
<td>NIOSH REL (STEL) (mg/m³)</td>
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<tr>
<td>USA NIOSH</td>
<td>NIOSH REL (STEL) (ppm)</td>
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<td>OSHA PEL (TWA) (mg/m³)</td>
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<td>OSHA PEL (TWA) (ppm)</td>
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<tr>
<td>Switzerland</td>
<td>KZGW (mg/m³)</td>
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<tr>
<td>Switzerland</td>
<td>MAK (mg/m³)</td>
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<td>Switzerland</td>
<td>MAK (ppm)</td>
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<td>Grenswaarde TGG 8H (mg/m³)</td>
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<td>Grenswaarde TGG 8H (ppm)</td>
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<td>WEL STEL (mg/m³)</td>
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<td>WEL STEL (ppm)</td>
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<td>Grænseværdie (langvarig) (mg/m³)</td>
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<td>Grænseværdie (langvarig) (ppm)</td>
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<td>HTP-arvo (15 min) (mg/m³)</td>
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<td>HTP-arvo (15 min) (ppm)</td>
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<td>AK-érték</td>
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<td>OEL (15 min ref) (ppm)</td>
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<td>IPRV (ppm)</td>
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<tr>
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<td>OEL TWA (ppm)</td>
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<tr>
<td>Norway</td>
<td>Grenseverdi (AN) (mg/m³)</td>
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<td>Grenseverdi (AN) (ppm)</td>
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<tr>
<td>Norway</td>
<td>Grenseverdi (Korttidsverdi) (mg/m3)</td>
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</tr>
<tr>
<td>Poland</td>
<td>NDS (mg/m³)</td>
</tr>
<tr>
<td>Poland</td>
<td>NDSCh (mg/m³)</td>
</tr>
<tr>
<td>Romania</td>
<td>OEL TWA (mg/m³)</td>
</tr>
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<td>OEL TWA (ppm)</td>
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<tr>
<td>Romania</td>
<td>OEL STEL (ppm)</td>
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<tr>
<td>Slovakia</td>
<td>NPHV (priemerná) (mg/m³)</td>
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<td>NPHV (priemerná) (ppm)</td>
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<tr>
<td>Sweden</td>
<td>nivågränsvärde (NVG) (mg/m³)</td>
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<td>nivågränsvärde (NVG) (ppm)</td>
</tr>
<tr>
<td>Sweden</td>
<td>kortidsvärde (KTV) (mg/m³)</td>
</tr>
</tbody>
</table>
LITHIUM METHOXIDE, 2.25M in methanol (9-10 wgt %)
Safety Data Sheet

<table>
<thead>
<tr>
<th>Methanol (67-56-1)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>kortidsvärde (KTV) (ppm)</td>
<td>250 ppm</td>
</tr>
<tr>
<td>Canada (Quebec)</td>
<td>VECD (mg/m³)</td>
<td>328 mg/m³</td>
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<tr>
<td>Canada (Quebec)</td>
<td>VECD (ppm)</td>
<td>250 ppm</td>
</tr>
<tr>
<td>Canada (Quebec)</td>
<td>VEMP (mg/m³)</td>
<td>262 mg/m³</td>
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<td>Canada (Quebec)</td>
<td>VEMP (ppm)</td>
<td>200 ppm</td>
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<tr>
<td>Australia</td>
<td>TWA (mg/m³)</td>
<td>262 mg/m³</td>
</tr>
<tr>
<td>Australia</td>
<td>TWA (ppm)</td>
<td>200 ppm</td>
</tr>
<tr>
<td>Australia</td>
<td>STEL (mg/m³)</td>
<td>328 mg/m³</td>
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<tr>
<td>Portugal</td>
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<td>OEL TWA (ppm)</td>
<td>200 ppm (indicative limit value)</td>
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<tr>
<td>Portugal</td>
<td>OEL STEL (ppm)</td>
<td>250 ppm</td>
</tr>
<tr>
<td>Portugal</td>
<td>OEL chemical category (PT)</td>
<td>skin - potential for cutaneous exposure indicative limit value</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 caustic organic vapor (black cartridge) respirator.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state: Liquid
- Appearance: Clear solution.
- Molecular mass: 37.97 g/mol
- Colour: No data available
- 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: No data available
- Freezing point: < 0 °C
- Boiling point: 68 °C (initial, methanol)
- Flash point: 11 °C
- Auto-ignition temperature: No data available
- Decomposition temperature: No data available
- Flammability (solid, gas): Highly flammable liquid and vapour.
- Vapour pressure: 50 mm Hg @ 25°C
- Relative vapour density at 20 °C: 5.9
- Relative density: 0.85
- % Volatiles: 85%
- Solubility: Reacts with water. Dissolves.
LITHIUM METHOXIDE, 2.25M in methanol (9-10 wgt %)
Safety Data Sheet

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 : 6 - 36.5 vol % (lower; upper: methanol)

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.

10.4. Conditions to avoid
Heat. Sparks. Open flame.

10.5. Incompatible materials

10.6. Hazardous decomposition products
Caustic organic vapors. Methanol. Lithium hydroxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity : Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled.

LITHIUM METHOXIDE, 2.25M in methanol (9-10 wgt %)

<table>
<thead>
<tr>
<th>Effect Type</th>
<th>CLP (mg/kg bodyweight)</th>
<th>CLP (mg/l/4h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE CLP (oral)</td>
<td>111.111</td>
<td></td>
</tr>
<tr>
<td>ATE CLP (dermal)</td>
<td>333.333</td>
<td></td>
</tr>
<tr>
<td>ATE CLP (vapours)</td>
<td>3.333</td>
<td></td>
</tr>
</tbody>
</table>

**Methanol (67-56-1)**

<table>
<thead>
<tr>
<th>Effect Type</th>
<th>CLP (ppm)</th>
<th>Exposure time</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 inhalation rat</td>
<td>22500 ppm</td>
<td>8 h</td>
</tr>
<tr>
<td>ATE CLP (oral)</td>
<td>100 mg/kg bodyweight</td>
<td></td>
</tr>
<tr>
<td>ATE CLP (dermal)</td>
<td>300 mg/kg bodyweight</td>
<td></td>
</tr>
<tr>
<td>ATE CLP (vapours)</td>
<td>3 mg/l/4h</td>
<td></td>
</tr>
</tbody>
</table>

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 : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Causes damage to organs.
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified


Symptoms/effects after skin contact : Toxic in contact with skin. Causes skin irritation. Repeated exposure to this material can result in absorption through skin causing significant health hazard. Worker will notice a slippery feeling on washing.

Symptoms/effects after eye contact : Causes serious eye damage.
Symptoms/effects after ingestion : Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard. Oral toxicity is associated with methanol, the solvent and a hydrolysis product which causes nausea, vomiting, headache, visual effects including blindness. Onset of symptoms may be delayed up to 48 hours.
LITHIUM METHOXIDE, 2.25M in methanol (9-10 wgt %)
Safety Data Sheet

Chronic symptoms: Methanol may effect the central nervous system resulting in persistent or recurring headaches or impaired vision. The solvent, methanol, probably determines toxicity. Ingestion of methanol can cause blindness and death.

SECTION 12: Ecological information

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

* Methanol (67-56-1) *

<table>
<thead>
<tr>
<th>LC50 fish 1</th>
<th>28200 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 2</td>
<td>&gt; 100 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability
No additional information available

12.3. Bioaccumulative potential

* Methanol (67-56-1) *

<table>
<thead>
<tr>
<th>BCF fish 1</th>
<th>&lt; 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log Pow</td>
<td>-0.77</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 METHOXIDE, 2.25M in methanol), 3 (8), II, (D/E)
Transport document description (IMDG) : UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (LITHIUM METHOXIDE, 2.25M in methanol), 3 (8), II
Transport document description (IATA) : UN 2924 Flammable liquid, corrosive, n.o.s. (LITHIUM METHOXIDE, 2.25M in methanol), 3 (8), II
Transport document description (ADN) : UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (LITHIUM METHOXIDE, 2.25M in methanol), 3 (8), II
Transport document description (RID) : UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (LITHIUM METHOXIDE, 2.25M in methanol), 3 (8), II
LITHIUM METHOXIDE, 2.25M in methanol (9-10 wgt %)
Safety Data Sheet

14.3. Transport hazard class(es)

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

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
LITHIUM METHOXIDE, 2.25M in methanol (9-10 wgt %)
Safety Data Sheet

14.6. Special precautions for user

- Overland transport
  Classification code (ADR) : FC
  Special provisions (ADR) : 274
  Limited quantities (ADR) : 1 L
  Excepted quantities (ADR) : E2
  Packing instructions (ADR) : P001, IBC02
  Mixed packing provisions (ADR) : MP19
  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 : 338
  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
  Carriage permitted (ADN) : T
  Equipment required (ADN) : PP, EP, EX, A
  Ventilation (ADN) : VE01
  Number of blue cones/lights (ADN) : 1
LITHIUM METHOXIDE, 2.25M in methanol (9-10 wgt %)
Safety Data Sheet

- 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
  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) 1, Slightly 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 : None of the components are listed
SZW-lijst van mutagene stoffen : None of the components are listed
NIET-limietlijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed
NIET-limietlijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed
NIET-limietlijst van voor de voortplanting giftige stoffen – Ontwikkeling : Methanol is listed

Denmark
Class for fire hazard : Class I-1
Store unit : 1 liter
Classification remarks : F <Flam. Liq. 2>; 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

15.2. Chemical safety assessment
No additional information available
## 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>TWA</td>
<td>Time weighted average</td>
</tr>
<tr>
<td>TLV</td>
<td>Threshold limit value</td>
</tr>
<tr>
<td>H</td>
<td>Hour</td>
</tr>
<tr>
<td>°C</td>
<td>Degrees Celsius</td>
</tr>
<tr>
<td>mm Hg, torr</td>
<td>Millimeters of Mercury, 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>TG</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>Acute Tox. 3 (Dermal)</td>
<td>Acute toxicity (dermal), Category 3</td>
</tr>
<tr>
<td>Acute Tox. 3 (Inhalation:vapour)</td>
<td>Acute toxicity (inhalation:vapour), Category 3</td>
</tr>
<tr>
<td>Acute Tox. 3 (Oral)</td>
<td>Acute toxicity (oral), Category 3</td>
</tr>
<tr>
<td>Eye Dam. 1</td>
<td>Serious eye damage/eye irritation, Category 1</td>
</tr>
<tr>
<td>Flam. Liq. 2</td>
<td>Flammable liquids, Category 2</td>
</tr>
<tr>
<td>Self-heat. 1</td>
<td>Self-Heating Substances and Mixtures, Category 1</td>
</tr>
<tr>
<td>Skin Corr. 1B</td>
<td>Skin corrosion/irritation, Category 1B</td>
</tr>
<tr>
<td>STOT SE 1</td>
<td>Specific target organ toxicity — single exposure, Category 1</td>
</tr>
<tr>
<td>STOT SE 2</td>
<td>Specific target organ toxicity — Single exposure, Category 2</td>
</tr>
<tr>
<td>H225</td>
<td>Highly flammable liquid and vapour.</td>
</tr>
<tr>
<td>H251</td>
<td>Self-heating; may catch fire.</td>
</tr>
<tr>
<td>H301</td>
<td>Toxic if swallowed.</td>
</tr>
<tr>
<td>H311</td>
<td>Toxic in contact with skin.</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>H331</td>
<td>Toxic if inhaled.</td>
</tr>
<tr>
<td>H370</td>
<td>Causes damage to organs.</td>
</tr>
<tr>
<td>H371</td>
<td>May cause damage to organs.</td>
</tr>
</tbody>
</table>

## SDS EU (REACH Annex II) - Custom

The information contained in this document has been gathered from reference materials and 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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