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

### 1.1. Product identifier

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product form</td>
<td>Substance</td>
</tr>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Substance name</td>
<td>POTASSIUM METHOXIDE, 95%</td>
</tr>
<tr>
<td>Product code</td>
<td>AKP645</td>
</tr>
<tr>
<td>Formula</td>
<td>CH3KO</td>
</tr>
<tr>
<td>Synonyms</td>
<td>POTASSIUM METHYLATE; METHANOL, POTASSIUM 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

| Use of the substance/mixture | Chemical intermediate For research and industrial use only |

### 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

### 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 (GHS-US)**

- Self-heat. 1 H251
- Skin Corr. 1B H314
- Eye Dam. 1 H318

Full text of H-phrases: see section 16

### 2.2. Label elements

**GHS-US labeling**

- **Hazard pictograms (GHS-US):**
  - ![GHS02](image)
  - ![GHS05](image)

- **Signal word (GHS-US):** Danger

- **Hazard statements (GHS-US):**
  - H251 - Self-heating: may catch fire
  - H314 - Causes severe skin burns and eye damage
  - H318 - Causes serious eye damage

- **Precautionary statements (GHS-US):**
  - P280 - Wear protective gloves/protective clothing/eye protection/face protection
  - P235+P410 - Keep cool. Protect from sunlight
  - P260 - Do not breathe dust
  - P264 - Wash hands thoroughly after handling
  - P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting
  - P303+P361+P353 - If on skin (or hair): take off immediately all contaminated clothing. rinse skin with water/shower
  - P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
  - 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 doctor
  - P363 - Wash contaminated clothing before reuse
  - P405 - Store locked up
  - P407 - Maintain air gap between stacks/pallets
  - P420 - Store away from other materials
  - P501 - Dispose of contents/container to licensed waste disposal facility.
POTASSIUM METHOXIDE, 95%
Safety Data Sheet

2.3. Other hazards
No additional information available

2.4. Unknown acute toxicity (GHS-US)
No data available

SECTION 3: Composition/Information on ingredients

3.1. Substance
Substance type: Mono-constituent
Name: POTASSIUM METHOXIDE, 95%
CAS No: 865-33-8
EC no: 212-736-1
EC index no: 603-040-00-2

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium methoxide</td>
<td>(CAS No) 865-33-8</td>
<td>&gt; 95</td>
<td>Flam. Liq. 2, H225</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Skin Corr. 1B, H314</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Eye Dam. 1, H318</td>
</tr>
<tr>
<td>Methanol</td>
<td>(CAS No) 67-56-1</td>
<td></td>
<td>Acute Tox. 3 (Oral), H301</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 3 (Dermal), H311</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 3 (Inhalation: vapour), H331</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Skin Irrit. 2, H315</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Eye Dam. 1, H318</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STOT SE 1, H370</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STOT SE 3, H336</td>
</tr>
</tbody>
</table>

3.2. Mixture
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 victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.
First-aid measures after skin contact: Wash with plenty of soap and water. If skin irritation or rash occurs: 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 medical advice/attention.
First-aid measures after ingestion: Never give anything by mouth to an unconscious person. Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/injuries: Causes severe skin burns and eye damage.
Symptoms/injuries after inhalation: Inhalation will cause sneezing, irritation and burns.
Symptoms/injuries after skin contact: Causes (severe) skin burns. Worker will notice a slippery feeling on washing.
Symptoms/injuries after eye contact: Causes serious eye damage.
Symptoms/injuries 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: Fires should be extinguished with dry sand, starting from the edge and working inwards.
Unsuitable extinguishing media: In no case should water be used.

5.2. Special hazards arising from the substance or mixture
Fire hazard: Irritating fumes and caustic vapors may develop when material is exposed to elevated temperatures or open flame.
Explosion hazard: POTASSIUM METHOXIDE CAN IGNITE SPONTANEOUSLY IF EXPOSED TO MOIST AIR AT TEMPERATURES GREATER THAN 70°C (158°F).

5.3. Advice for firefighters
Firefighting instructions: Protect against caustic dust, smoke and water. Exercise caution when fighting any chemical fire.
SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures
Do not enter fire area without proper protective equipment, including respiratory protection. Wear pressure demand self-contained breathing apparatus with full facepiece and full protective clothing. Avoid all eye and skin contact and do not breathe vapor and mist.

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 liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up
Sweep or shovel spills into appropriate container for disposal.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling
Avoid contact with skin and eyes. Do not breathe dust. Provide local exhaust or general room ventilation to minimize exposure to dust. Avoid dust formation. Use only in well ventilated areas.

Hygiene measures
Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions
Keep container tightly closed. Store under dry nitrogen or argon in sealed containers. Keep in a cool place. Protect from sunlight.

Incompatible materials
Acids, Alcohols, Carbon dioxide, Esters, Halogens, Ketones, Moist air, Water.

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>Substance</th>
<th>USA ACGIH ACGIH TWA (ppm)</th>
<th>USA ACGIH ACGIH STEL (ppm)</th>
<th>USA NIOSH NIOSH REL (TWA) (mg/m³)</th>
<th>USA NIOSH NIOSH REL (TWA) (ppm)</th>
<th>USA NIOSH NIOSH REL (STEL) (mg/m³)</th>
<th>USA NIOSH NIOSH REL (STEL) (ppm)</th>
<th>USA OSHA OSHA PEL (TWA) (mg/m³)</th>
<th>USA OSHA OSHA PEL (TWA) (ppm)</th>
<th>USA IDLH US IDLH (ppm)</th>
<th>USA IDLH US IDLH (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>200 ppm</td>
<td></td>
<td>260 mg/m³</td>
<td></td>
<td>325 mg/m³</td>
<td></td>
<td></td>
<td></td>
<td>6000 ppm</td>
<td></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.

Respiratory protection
NIOSH-certified dust and mist (teal 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>70.12 g/mol</td>
</tr>
<tr>
<td>Color</td>
<td>White</td>
</tr>
<tr>
<td>Odor</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>Refractive index</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>&gt; 300 °C decomposes</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>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>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility</td>
<td>Reacts with water. Dissolves.</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>Oxidizing 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.

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

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Methanol (67-56-1)</td>
<td></td>
</tr>
<tr>
<td>LD50 oral rat</td>
<td>6200 mg/kg</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>20 g/kg</td>
</tr>
<tr>
<td>LC50 inhalation rat (ppm)</td>
<td>22500 ppm (Exposure time: 8 h)</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>100.000 mg/kg/body weight</td>
</tr>
<tr>
<td>ATE US (dermal)</td>
<td>300.000 mg/kg/body weight</td>
</tr>
<tr>
<td>ATE US (vapors)</td>
<td>3.000 mg/l/4h</td>
</tr>
</tbody>
</table>
POTASSIUM METHOXIDE, 95%
Safety Data Sheet

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

- **Skin corrosion/irritation**: Causes severe skin burns and eye damage.
- **Serious eye damage/irritation**: Causes serious eye damage.
- **Respiratory or skin sensitization**: Not classified
- **Germ cell mutagenicity**: Not classified
- **Carcinogenicity**: Not classified
- **Reproductive toxicity**: Not classified
- **Specific target organ toxicity (single exposure)**: Not classified
- **Specific target organ toxicity (repeated exposure)**: Not classified
- **Aspiration hazard**: Not classified
- **Symptoms/injuries after inhalation**: Inhalaion will cause sneezing, irritation and burns.
- **Symptoms/injuries after skin contact**: Causes (severe) skin burns. Worker will notice a slippery feeling on washing.
- **Symptoms/injuries after eye contact**: May be harmful if swallowed.
- **Reason for classification**: Expert judgment

**SECTION 12: Ecological information**

12.1. **Toxicity**

| Methanol (67-56-1) |  
|-------------------|---|
| **LC50 fish 1** | 28200 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) |
| **LC50 fish 2** | > 100 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static]) |

12.2. **Persistence and degradability**

No additional information available

12.3. **Bioaccumulative potential**

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

| Methanol (67-56-1) |  
|-------------------|---|
| **BCF fish 1** | < 10 |
| **Log Pow** | -0.77 |

12.4. **Mobility in soil**

No additional information available

12.5. **Other adverse effects**

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

Effect on ozone layer: No additional information available

Effect on the global warming: No known ecological damage caused by this product.

**SECTION 13: Disposal considerations**

13.1. **Waste treatment methods**

Waste 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**

| UN-No.(DOT) | 3206 |
| DOT NA no. | UN3206 |

14.2. **UN proper shipping name**

Proper Shipping Name (DOT): Alkali metal alcoholates, self-heating, corrosive, n.o.s. (POTASSIUM METHOXIDE)

Hazard Classes (DOT): 4.2 - Class 4.2 - Spontaneously combustible material 49 CFR 173.124

Hazard labels (DOT): 4.2 - Spontaneously combustible

8 - Corrosive

DOT Symbols: G - Identifies PSN requiring a technical name
### 12.1. Additional information

Other information: No supplementary information available.

### Transport by sea

DOT Vessel Stowage Location: B - (i) The material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) “On deck only” on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.

### Air transport

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27): 15 kg

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75): 50 kg

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

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

- Listed on the United States TSCA (Toxic Substances Control Act) inventory
- Listed on United States SARA Section 313
- SARA Section 313 - Emission Reporting: 1.0 %

**Potassium methoxide (865-33-8)**

- Listed on the United States TSCA (Toxic Substances Control Act) inventory

#### 15.2. International regulations

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

- Listed on the AICS (Australian Inventory of Chemical Substances)
- Listed on the Canadian DSL (Domestic Substances List)
- Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
- Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
- Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
- Listed on the Korean ECL (Existing Chemicals List)
- Listed on NZIoC (New Zealand Inventory of Chemicals)
- Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
- Japanese Poisone and Deleterious Substances Control Law
- Listed on the Canadian IDL (Ingredient Disclosure List)

**Potassium methoxide (865-33-8)**

- Listed on the AICS (Australian Inventory of Chemical Substances)
- Listed on the Canadian NDSL (Non-Domestic Substances List)
- Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
- Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
- Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
- Listed on the Japanese ISHL (Industrial Safety and Health Law)
- Listed on the Korean ECL (Existing Chemicals List)
- Listed on NZIoC (New Zealand Inventory of Chemicals)
- Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

#### 15.3. US State regulations

**POTASSIUM METHOXIDE, 95% (865-33-8)**

<table>
<thead>
<tr>
<th>State</th>
<th>Proposition 65</th>
<th>Carcinogens List</th>
<th>Developmental Toxicity</th>
<th>Reproductive Toxicity - Female</th>
<th>Reproductive Toxicity - Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. - California</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>State</th>
<th>Proposition 65</th>
<th>Carcinogens List</th>
<th>Developmental Toxicity</th>
<th>Reproductive Toxicity - Female</th>
<th>Reproductive Toxicity - Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. - California</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

No significance risk level (NSRL)
POTASSIUM METHOXIDE, 95%
Safety Data Sheet

Methanol (67-56-1)

<table>
<thead>
<tr>
<th></th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Potassium methoxide (865-33-8)

<table>
<thead>
<tr>
<th></th>
<th>U.S. - California - Proposition 65 - Carcinogens List</th>
<th>U.S. - California - Proposition 65 - Developmental Toxicity</th>
<th>U.S. - California - Proposition 65 - Reproductive Toxicity - Female</th>
<th>U.S. - California - Proposition 65 - Reproductive Toxicity - Male</th>
<th>No significance risk level (NSRL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

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.
- Full text of H-phrases:

  - Acute Tox. 3 (Dermal)
  - Acute Tox. 3 (Inhalation:vapour)
  - Acute Tox. 3 (Oral)
  - Eye Dam. 1
  - Flam. Liq. 2
  - Self-heat. 1
  - Skin Corr. 1B
  - Skin Irr. 2
  - STOT SE 1
  - STOT SE 3
  - H225
  - H251
  - H301
  - H311
  - H314
  - H315
  - H318
  - H331
  - H336
  - H370

HMIS III Rating

- Health: 4 Severe Hazard - Life-threatening, major or permanent damage may result from single or repeated overexposures
- Flammability: 3 Serious Hazard
- Physical: 1 Slight Hazard

Prepared by safety and environmental affairs.

Date of issue: 04/03/2015 Version: 1.0

SDS US (GHS HazCom 2012) - Custom

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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