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

1.1. Product identifier

- **Product form**: Mixture
- **Physical state**: Liquid
- **Product name**: POTASSIUM METHYLSILICONATE, 40% in water
- **Product code**: SIP6898.0
- **Formula**: CH7KO3Si
- **Synonyms**: METHYL SILANETRIOL, POTASSIUM SALT; METHYL SILICONATE, POTASSIUM; POTASSIUM METHYL SILANETRIOLATE
- **Chemical family**: SILICATE SOLUTION

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)**
- Skin Corr.: 1B H314
- Eye Dam.: 1 H318

Full text of H-phrases: see section 16

2.2. Label elements

**GHS-US labeling**
- **Signal word (GHS-US)**: Danger
- **Hazard statements (GHS-US)**: 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
  - P260 - Do not breathe vapors
  - 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
  - P501 - Dispose of contents/container to licensed waste disposal facility.

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
Not applicable

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification (GHS-US)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>(CAS No) 7732-18-5</td>
<td>&lt; 65</td>
<td>Not classified</td>
<td></td>
</tr>
<tr>
<td>Potassium methylsiliconate</td>
<td>(CAS No) 31795-24-1</td>
<td>&gt; 35</td>
<td>Skin Corr. 1B, H314</td>
<td>Eye Dam. 1, H318</td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td>(CAS No) 1310-58-3</td>
<td>&lt; 2</td>
<td>Acute Tox. 3 (Oral), H301</td>
<td>Skin Corr. 1A, H314 Eye Dam. 1, H318</td>
</tr>
</tbody>
</table>

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.

First-aid measures after eye contact: Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

First-aid measures after ingestion: Never give anything by mouth to an unconscious person. Get medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/injuries: Causes severe skin burns and eye damage.


Symptoms/injuries after skin contact: Causes (severe) skin burns.

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

Symptoms/injuries after ingestion: No information available.

4.3. Indication of any immediate medical attention and special treatment needed
No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media: Not combustible.

5.2. Special hazards arising from the substance or mixture
No additional information available

5.3. Advice for firefighters
Protection during firefighting: Avoid all eye and skin contact and do not breathe vapor and mist.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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 liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up
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.

6.4. Reference to other sections
No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling: Use only in well ventilated areas. Avoid all eye and skin contact and do not breathe vapor and mist.
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
Storage conditions: Keep container tightly closed.

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Potassium hydroxide (1310-58-3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA ACGIH</td>
</tr>
<tr>
<td>USA NIOSH</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Appropriate engineering controls: Provide local exhaust or general room ventilation.

Personal protective equipment: 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: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified dust and mist (orange cartridge) respirator.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear solution.</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>132.23 g/mol</td>
</tr>
<tr>
<td>Color</td>
<td>No data available</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>pH solution</td>
<td>13</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=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>100 °C - initial (water)</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>&lt; 1 mm Hg @ 20°C</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.29</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in water.</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Kow</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>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.

10.3. Possibility of hazardous reactions
No additional information available

10.4. Conditions to avoid
No additional information available

10.5. Incompatible materials
Acids. Aluminum metal.

10.6. Hazardous decomposition products
Carbon dioxide. Potassium hydroxide. Silicon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity: Not classified

<table>
<thead>
<tr>
<th>Water (7732-18-5)</th>
<th>LD50 oral rat</th>
<th>&gt; 90 ml/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium hydroxide (1310-58-3)</td>
<td>LD50 oral rat</td>
<td>284 mg/kg</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>284,000 mg/kg body weight</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 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 skin contact: Causes (severe) skin burns.
Symptoms/injuries after eye contact: Causes serious eye damage.
Symptoms/injuries after ingestion: No information available.
Reason for classification: Expert judgment

SECTION 12: Ecological information

12.1. Toxicity
No additional information available

12.2. Persistence and degradability
No additional information available

12.3. Bioaccumulative potential

| Potassium hydroxide (1310-58-3) | Log Pow | 0.65 |

12.4. Mobility in soil
No additional information available

12.5. Other adverse effects
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: Landfill. 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): 1719
DOT NA no.: UN1719

14.2. UN proper shipping name
Proper Shipping Name (DOT): Caustic alkali liquids, n.o.s. (POTASSIUM METHYLSILICONATE, 40% in water)

Hazard Classes (DOT): 8 - Class 8 - Corrosive material 49 CFR 173.136
Hazard labels (DOT): 8 - Corrosive

DOT Symbols: G - Identifies PSN requiring a technical name
Packing group (DOT): II - Medium Danger
DOT Packaging Exceptions (49 CFR 173.xxx): 154
DOT Packaging Non Bulk (49 CFR 173.xxx): 202
DOT Packaging Bulk (49 CFR 173.xxx): 242

14.3. Additional information
Other information: No supplementary information available.

Transport by sea
DOT Vessel Stowage Location: A - The material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel.
DOT Vessel Stowage Other: 29 - Stow “away from” ammonium compounds, 52 - Stow “separated from” acids

Air transport
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27): 1 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75): 30 L

SECTION 15: Regulatory information

15.1. US Federal regulations
Water (7732-18-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Potassium methylsiliconate (31795-24-1)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Potassium hydroxide (1310-58-3)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations
Water (7732-18-5)
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 Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
POTASSIUM METHYLSILICONATE, 40% in water
Safety Data Sheet

15.3. US State regulations

<table>
<thead>
<tr>
<th>POTASSIUM METHYLSILICONATE, 40% in water</th>
<th>U.S. - California - Proposition 65 - Carcinogens List</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. - California - Proposition 65 - Developmental Toxicity</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>U.S. - California - Proposition 65 - Reproductive Toxicity - Female</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>U.S. - California - Proposition 65 - Reproductive Toxicity - Male</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

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<td>No</td>
<td></td>
</tr>
<tr>
<td>U.S. - California - Proposition 65 - Reproductive Toxicity - Female</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>U.S. - California - Proposition 65 - Reproductive Toxicity - Male</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Potassium hydroxide (1310-58-3)</th>
<th>U.S. - California - Proposition 65 - Carcinogens List</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. - California - Proposition 65 - Developmental Toxicity</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>U.S. - California - Proposition 65 - Reproductive Toxicity - Female</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>U.S. - California - Proposition 65 - Reproductive Toxicity - Male</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 16: Other information

Full text of H-phrases:

- Acute Tox. 3 (Oral): Acute toxicity (oral) Category 3
- Eye Dam. 1: Serious eye damage/eye irritation Category 1
- Skin Corr. 1A: Skin corrosion/irritation Category 1A
- Skin Corr. 1B: Skin corrosion/irritation Category 1B
- H301: Toxic if swallowed
- H314: Causes severe skin burns and eye damage
- H318: Causes serious eye damage

HMIS III Rating

Health: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given
POTASSIUM METHYLSILICONATE, 40% in water
Safety Data Sheet

Flammability : 0 Minimal Hazard
Physical : 0 Minimal Hazard

Date of issue: 04/08/2015 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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