1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier**

**Product Name:** L.O.E. STRIPPER

**Product Number:** 0061C

**Recommended Use:** Stripping solution

**Uses Advised Against:** For Industrial and Institutional Use Only

**Manufacturer/Supplier:** Spartan Chemical Company, Inc.

1110 Spartan Drive
Maumee, Ohio 43537 USA
800-537-8990 (Business hours)
www.spartanchemical.com

**Canadian Agent:** Perley-Robertson, Hill & McDougald, LLP

340 Albert Street, Suite 1400
Ottawa, ON, Canada K1R 0A5

**Medical Emergency/Information:** 888-314-6171 (24 Hour)

2. HAZARDS IDENTIFICATION

**GHS Classification**

- **Skin Corrosion/Irritation:** Category 1
- **Serious Eye Damage/Eye Irritation:** Category 1
- **Specific Target Organ Toxicity (Single Exposure):** Category 3
- **Corrosive to Metals:** Category 1

**GHS Label Elements**

**Signal Word:** Danger

**Symbols:**

- Causes severe skin burns and serious eye damage.
- May cause respiratory irritation. May cause drowsiness or dizziness
- May be corrosive to metals.

**Precautionary Statements:**

**Prevention:**

- Do not breathe mist, vapors or spray.
- Wash hands and any exposed skin thoroughly after handling.
- Wear protective gloves. Wear eye / face protection. Wear protective clothing.
- Use only outdoors or in a well-ventilated area

- Keep in original or other corrosion resistant container.

**Response:**

- **Eyes**
  
  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

- **Skin**
  
  IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse.

- **Inhalation:**
  
  IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

- **Ingestion:**
  
  IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

- **Specific Treatment:**
  
  See Safety Data Sheet Section 4: "FIRST AID MEASURES" for additional information.
Spill: Absorb spillage to prevent material damage.
Storage: Store locked up. Store in a well-ventilated place. Keep container tightly closed. Store in corrosion resistant container.
Disposal: Dispose of contents and container in accordance with local, state and federal regulations.

Hazards Not Otherwise Classified: Not Applicable

Other Information:
• Corrosive.
• Harmful if swallowed
• Harmful contact may not cause immediate pain.
• Harmful if absorbed through skin.
• Take off and destroy contaminated shoes.
• Keep out of reach of children.
• NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>water</td>
<td>7732-18-5</td>
<td>60.0-62.5</td>
</tr>
<tr>
<td>diethylene glycol monobutyl ether</td>
<td>112-34-5</td>
<td>27.5-30.0</td>
</tr>
<tr>
<td>monoethanolamine</td>
<td>141-43-5</td>
<td>5.0-7.5</td>
</tr>
<tr>
<td>potassium hydroxide</td>
<td>1310-58-3</td>
<td>1.0-2.5</td>
</tr>
<tr>
<td>phosphate ester</td>
<td>68130-47-2</td>
<td>1.0-2.5</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

• Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN.
• Skin Contact: Take off immediately all contaminated clothing and shoes. Rinse with water or shower for at least 15 minutes. IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN. Wash contaminated clothing before reuse. Discard or destroy contaminated shoes.
• Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN.
• Ingestion: Rinse mouth. Do NOT induce vomiting. IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN. Never give anything by mouth to an unconscious person.

Note to Physicians:
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Product does not support combustion, Use extinguishing agent suitable for type of surrounding fire
Specific Hazards Arising from the Chemical: Dried product is capable of burning. Combustion products are toxic.
Hazardous Combustion Products: May include Carbon monoxide Carbon dioxide and other toxic gases or vapors.
Protective Equipment and Precautions for Firefighters: Wear MSHA/NIOH approved self-contained breathing apparatus (SCBA) and full protective gear. Cool fire-exposed containers with water spray.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.
Environmental Precautions: Do not rinse spill onto the ground, into storm sewers or bodies of water.
Methods for Clean-Up: Prevent further leakage or spillage if safe to do so. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

7. HANDLING AND STORAGE
Advice on Safe Handling: Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling.

Storage Conditions: Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep from freezing.

Incompatible Materials: Reactive metals such as aluminum, zinc and tin. Strong acids.

Suggested Shelf Life: Minimum of 2 years from date of manufacture.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Occupational Exposure Limits:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH</th>
</tr>
</thead>
<tbody>
<tr>
<td>diethylene glycol monobutyl ether</td>
<td>TWA: 10 ppm inhalable fraction</td>
<td>TWA: 3 ppm</td>
<td>IDLH: 30 ppm</td>
</tr>
<tr>
<td>112-34-5</td>
<td>and vapor</td>
<td>TWA: 6 mg/m³</td>
<td>TWA: 3 ppm</td>
</tr>
<tr>
<td></td>
<td>STEL: 6 ppm</td>
<td>(vacated) TWA: 3 ppm</td>
<td>TWA: 8 mg/m³</td>
</tr>
<tr>
<td>monoethanolamine</td>
<td>TWA: 3 ppm</td>
<td>(vacated) STEL: 6 ppm</td>
<td>STEL: 6 ppm</td>
</tr>
<tr>
<td>141-43-5</td>
<td>STEL: 6 ppm</td>
<td>(vacated) STEL: 15 mg/m³</td>
<td>STEL: 15 mg/m³</td>
</tr>
<tr>
<td>potassium hydroxide</td>
<td>Ceiling: 2 mg/m³</td>
<td>(vacated) Ceiling: 2 mg/m³</td>
<td>Ceiling: 2 mg/m³</td>
</tr>
<tr>
<td>1310-58-3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Engineering Controls:

Provide good general ventilation. If work practices generate dust, fumes, gas, vapors or mists which expose workers to chemicals above the occupational exposure limits, local exhaust ventilation or other engineering controls should be considered.

Eye wash stations and shower facilities should be readily accessible in areas where the product is handled.

#### Personal Protective Equipment

**Eye/Face Protection:** Wear splash goggles. For severe use-conditions, wear a face shield over the goggles.

**Skin and Body Protection:** Wear rubber or other chemical-resistant gloves and solvent / alkali resistant boots. The use of other protective equipment should be considered in order to prevent or minimize contact with this product.

**Respiratory Protection:** Not required with expected use.

If occupational exposure limits are exceeded or respiratory irritation occurs, use of a NIOSH/MSHA approved respirator suitable for the use-conditions and chemicals in Section 3 should be considered.

**General Hygiene Considerations:** Wash hands and any exposed skin thoroughly after handling. See 29 CFR 1910.132-138 for further guidance.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance/Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Light orange</td>
</tr>
<tr>
<td>Odor</td>
<td>Mild</td>
</tr>
<tr>
<td>pH</td>
<td>13.5-14.0</td>
</tr>
<tr>
<td>Melting Point / Freezing Point</td>
<td>No information available.</td>
</tr>
<tr>
<td>Boiling Point / Boiling Range</td>
<td>100 °C / 212 °F</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt; 100 °C / &gt; 212 °F ASTM D56</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>&lt; 1 (Butyl acetate = 1)</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available.</td>
</tr>
<tr>
<td>Upper Flammability Limit</td>
<td>No information available.</td>
</tr>
<tr>
<td>Lower Flammability Limit</td>
<td>No information available.</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No information available.</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>No information available.</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.024</td>
</tr>
<tr>
<td>Solubility(ies):</td>
<td>Soluble in water</td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>No information available.</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>No information available.</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No information available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No information available.</td>
</tr>
</tbody>
</table>
10. STABILITY AND REACTIVITY

Reactivity:
This material is considered to be non-reactive under normal conditions of use.

Chemical Stability:
Stable under normal conditions.

Possibility of Hazardous Reactions:
Contact with aluminum or other reactive metals may release hydrogen gas.

Conditions to Avoid:
Extremes of temperature and direct sunlight.

Incompatible Materials:
Reactive metals such as aluminum, zinc and tin. Strong acids.

Hazardous Decomposition Products:
May include carbon monoxide, carbon dioxide (CO2) and other toxic gases or vapors.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Eyes, Skin, Ingestion, Inhalation.

Symptoms of Exposure:
- Eye Contact: Pain, redness, swelling of the conjunctiva and tissue damage. Eye contact may cause permanent damage.
- Skin Contact: Pain, redness, blistering and possible chemical burn.
- Inhalation: Irritation or damage to the mucus membranes of the respiratory tract. Nasal discomfort and coughing. May cause drowsiness or dizziness.
- Ingestion: Damage or chemical burns to mouth, throat and stomach. Pain, nausea, vomiting and diarrhea.

Immediate, Delayed, Chronic Effects
Product Information: Data not available or insufficient for classification.

Target Organ Effects: Central nervous system. -Eyes. Respiratory System. -Skin.

Numerical Measures of Toxicity
The following acute toxicity estimates (ATE) are calculated based on the GHS document.

- ATEmix (oral): 6231 mg/kg
- ATEmix (dermal): 6089 mg/kg
- ATEmix (inhalation-dust/mist): 25.1 mg/l

Component Acute Toxicity Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>water</td>
<td>&gt; 90 mL/kg (Rat)</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>diethylene glycol monobutyl ether</td>
<td>= 5660 mg/kg (Rat)</td>
<td>= 2700 mg/kg (Rabbit)</td>
<td>Not Available</td>
</tr>
<tr>
<td>monoethanolamine</td>
<td>= 1720 mg/kg (Rat)</td>
<td>= 1000 mg/kg (Rabbit)</td>
<td>Not Available</td>
</tr>
<tr>
<td>potassium hydroxide</td>
<td>= 284 mg/kg (Rat)</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>7732-18-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>112-34-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>141-43-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1310-58-3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Carcinogenicity: No components present at 0.1% or greater are listed as to being carcinogens by ACGIH, IARC, NTP or OSHA.

12. ECOLOGICAL INFORMATION

Ecotoxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/Aquatic Plants</th>
<th>Fish</th>
<th>Toxicity to Microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>diethylene glycol monobutyl ether</td>
<td>100: 96 h Desmodesmus subspicatus mg/L EC50</td>
<td>1300: 96 h Lepomis macrochirus mg/L LC50 static</td>
<td>Not Available</td>
<td>100: 48 h Daphnia magna mg/L EC50</td>
</tr>
<tr>
<td>Persistence and Degradability:</td>
<td>No information available.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------</td>
<td>--------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bioaccumulation:</td>
<td>No information available.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Adverse Effects:</td>
<td>No information available.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 13. DISPOSAL CONSIDERATIONS

**Disposal of Wastes:**
This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

**Contaminated Packaging:**
Dispose of in accordance with federal, state and local regulations.

**US EPA Waste Number:**
D002

### 14. TRANSPORT INFORMATION

**TDG / DOT:**
Not Regulated

**UN/ID No:**
UN1760

**Proper Shipping Name:**
Corrosive liquids, n.o.s., (contains potassium hydroxide)

**Hazard Class:**
8

**Packing Group:**
II

**Reportable Quantity (RQ):**
For totes add: RQ, I.B.C.

**Special Provisions:**
Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Check with a trained hazardous materials transportation expert for information specific to your situation.

**IMDG:**

**UN/ID No:**
UN1760

**Proper Shipping Name:**
Corrosive liquids, n.o.s., (contains potassium hydroxide)

**Hazard Class:**
8

**Packing Group:**
II

**Reportable Quantity (RQ):**
For totes add: RQ, I.B.C.

### 15. REGULATORY INFORMATION

**DSL / NDSL Status:** (Domestic Substances List / Non-Domestic Substances List)
The chemical substances in this product are included on or exempt from listing on the Canadian DSL / NDSL.

**TSCA Status:** (Toxic Substance Control Act Section 8(b) Inventory)
All chemical substances in this product are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

**SARA 313**
This product contains the following listed substances:

- **diethylene glycol monobutyl ether**
  CAS No. 112-34-5 applies to R-(OCH2CH2)n-OR, where n = 1, 2, or 3, R=Alkyl C7 or less, or R = Phenyl or Alkyl substituted phenyl, R’ = H or Alkyl C7 or less, or OR’ consisting of Carboxylic acid ester, Sulfate, Phosphate, Nitrate, or Sulfonate Chemical Category N230

**SARA 311/312 Hazard Categories**

- **Acute Health Hazard:** Yes
Chronic Health Hazard:      Yes
Fire Hazard:                No
Sudden release of pressure hazard: No
Reactive Hazard:            No

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Special</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>HMIS</td>
<td>Health Hazards</td>
<td>3*</td>
<td>0</td>
<td>Physical Hazards: 0</td>
</tr>
</tbody>
</table>

Revision Date: 11-Dec-2017
Reasons for Revision: Section 7 and 9

Disclaimer:
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet