**MSDS - Material Safety Data Sheet**

**Product Name:** LIQUID WRENCH SUPER PENETRANT (Liquid)

**MSDS No.:** L116

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**I. Basic Information:**

**Manufacturer:** RADIATOR SPECIALTY COMPANY  
**Address:** 600 RADIATOR ROAD  
**City, ST, Zip:** INDIAN TRAIL, NC 28079  
**Country:**

**Product Name:** LIQUID WRENCH SUPER PENETRANT (Liquid)  
**MSDS No.:** L116

**Issue Date:** 02/19/2008  
**Supersedes Date:** 04/13/2007

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**II. Hazards Identification:**

**EMERGENCY OVERVIEW**

Danger: Harmful or fatal if swallowed. Eye and skin irritant.

**OSHA Regulatory Status**

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Potential Health Effects**

**Route(s) of Entry:**

Absorption, Inhalation, and Ingestion.

**Health Hazards (Acute and Chronic):**

See Signs and Symptoms below.

**Signs and Symptoms:**

Eye Contact: Irritant. Prolonged contact may cause conjunctivitis.  
Skin Contact: Irritant. Defatting of tissue, dermatitis may occur.  
Inhalation: Irritant to mucous membranes. Repeated exposure may cause narcosis, dizziness, respiratory or lung irritation.  
Ingestion: HARMFUL OR FATAL IF SWALLOWED.

**Medical Conditions Generally Aggravated by Exposure:**

Unknown

**Other Health Warnings:**

Vomiting and subsequent aspiration into the lungs may lead to chemical pneumonia and pulmonary edema which is a potentially fatal condition.

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**III. Composition/Information on Ingredients:**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>% Range</th>
<th>Trade Secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>3.0 - 7.0</td>
<td>Trade Secret</td>
</tr>
<tr>
<td>Naphthenic Petroleum Distillate</td>
<td>64742-52-5</td>
<td>7.0 - 13.0</td>
<td></td>
</tr>
<tr>
<td>Natural Methyl Ester</td>
<td>67762-38-3</td>
<td>40.0 - 60.0</td>
<td></td>
</tr>
<tr>
<td>Refined Soybean Oil</td>
<td>8001-22-7</td>
<td>15.0 - 40.0</td>
<td></td>
</tr>
</tbody>
</table>

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**IV. First Aid Measures:**

**Emergency and First Aid Procedures:**
**V. Fire Fighting Measures:**

**Suitable Extinguishing Media:**
Water Fog, Foam, Carbon Dioxide, Dry Chemical

**Unsuitable Extinguishing Media:**
Do not use forced water stream as this could cause the fire to spread.

**Products of Combustion:**
Normal products of combustion, smoke, carbon dioxide, carbon monoxide, and sulfur trioxides.

**Protection of Firefighters:**
Wear self-contained positive pressure breathing apparatus and protective clothes. Use shield to protect from rupturing and venting containers. At elevated temperatures containers may vent, rupture or burst, even violently.

**VI. Accidental Release Measures:**

**Personal Precautions:**
Eliminate all ignition sources. Persons not wearing protective equipment should be excluded from area of spill until clean up has been completed.

**Environmental Precautions:**
Prevent run-off to sewers, streams, or other bodies of water. If run-off occurs, notify proper authorities as required that a spill has occurred. Run off to sewer may create fire or explosion hazard.

**Methods for Containment:**
Dike or contain spill and absorb with inert materials (sand, sawdust, absorbent sweeping compounds, rags, etc).

**Methods for Cleanup:**
Using a non-metallic scoop, place contaminated material into an approved chemical waste container. Where possible, vacuum spilled liquid using an explosion proof vacuum to recover material.

**Other Information:**
All equipment used with handling the concentrate must be grounded. If run-off occurs, notify proper authorities as required that a spill has occurred.

**VII. Handling and Storage:**

**Handling Precautions:**
Handling: Use with adequate ventilation and proper protective equipment. Store in a cool, dry area, away from oxidizers. Keep away from open flames, sparks, or other ignition sources.

**Storage Precautions:**
Do not use in confined area without proper ventilation. Contact lenses may cause further damage in case of splash into eye. KEEP AWAY FROM CHILDREN AND ANIMALS! CAUTION: Combustible. Keep container closed tightly when not in use.

**VIII. Exposure Controls/Personal Protection:**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Other Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Methyl Ester</td>
<td>N/E</td>
<td>N/E</td>
<td>Not Available</td>
</tr>
<tr>
<td>Refined Soybean Oil</td>
<td>Not Established</td>
<td>Not Established</td>
<td>10 mg/m3 (mist)</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>25 ppm</td>
<td>25 ppm</td>
<td>Not Available</td>
</tr>
<tr>
<td>Naphthenic Petroleum Distillate</td>
<td>5 mg/m3</td>
<td>5 mg/m3</td>
<td>Not Available</td>
</tr>
</tbody>
</table>
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Engineering Controls:
Use with adequate ventilation. If TLV is exceeded, wear NIOSH approved respirator.

Personal Protective Equipment:
See Section 2 for applicable exposure limits. For prolonged exposure wear protective safety glasses, gloves, and apron.

IX. Physical and Chemical Properties:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point</td>
<td>320 F</td>
</tr>
<tr>
<td>Boiling Range</td>
<td>Not Available</td>
</tr>
<tr>
<td>Solubility In Water</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt; 200°F</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not Available</td>
</tr>
<tr>
<td>Vapor Density (AIR = 1)</td>
<td>N/A</td>
</tr>
<tr>
<td>pH Range</td>
<td>Not Available</td>
</tr>
<tr>
<td>Decomposition Temp</td>
<td>Not Available</td>
</tr>
<tr>
<td>Lower Explosive Limit</td>
<td>N/E</td>
</tr>
<tr>
<td>Specific Gravity (H20 = 1)</td>
<td>0.90</td>
</tr>
<tr>
<td>Other Information</td>
<td>VOC Content: 13.28%</td>
</tr>
<tr>
<td>Melting Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>Not Available</td>
</tr>
<tr>
<td>Evaporation Rate (Butyl Acetate = 1)</td>
<td>N/A</td>
</tr>
<tr>
<td>Flash Point Method</td>
<td>TCC</td>
</tr>
<tr>
<td>Appearance and Odor</td>
<td>Dark Liquid with petroleum odor</td>
</tr>
<tr>
<td>Vapor Pressure (mm Hg.)</td>
<td>N/A</td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>Not Available</td>
</tr>
<tr>
<td>Auto-Ignition Temp</td>
<td>Not Available</td>
</tr>
<tr>
<td>Upper Explosive Limit</td>
<td>N/E</td>
</tr>
</tbody>
</table>

X. Stability and Reactivity:

Stability:
Product is stable

Conditions to Avoid:
See Incompatible Materials below

Incompatible Materials:
Avoid contact with strong oxidizers

Hazardous Decomposition Products:
Normal products of combustion, smoke, carbon dioxide, carbon monoxide, and sulfur trioxides.

Possibility of Hazardous Reactions:
Will not occur

XI. Toxicological Information:

Not Established

XII. Ecological Information:

Not Established

XIII. Disposal Considerations:

DISPOSAL: This container may be recycled in a recycling centers when empty. Before offering for recycling, empty the can or bottle by using the product according to the label. If recycling is not available, wrap the container and discard in the trash. Dispose of unused product in accordance with all local, state government and federal laws and regulations

XIV. Transport Information:

Shipping Name: Not Available
**Product Name:** LIQUID WRENCH SUPER PENETRANT (Liquid)

**MSDS No.: L116**

- **DOT Hazard Class:** Not Available
- **UN/NA#:** Not Available
- **DOT Subsidiary Hazard Class:** Not Available
- **Packing Group:** Not Available

**Transportation Information:**
- **DOT Shipping Name:** Not DOT regulated.
- **DOT Hazard Class:** None

The above DOT description is provided to assist in the proper shipping classification of this product by ground and may not be suitable for all shipping purposes.

For international shipping: ICAO, AND IMDG

**XV. Regulatory Information:**

See Section 2 for SARA Reportable Chemicals.

USA TSCA: All components of this material are listed on the US TSCA Inventory.

**XVI. Other Information:**

- **Chemical State:** Liquid
- **Chemical Type:** Mixture
- **Hazard Category:** Acute

**Additional Manufacturer Warnings:**

Do not used in confined area without proper ventilation. Contact lenses may cause further damage in case of splash into eye. KEEP AWAY FROM CHILDREN AND ANIMALS!

N/E: Not Established
N/D: Not Determined
N/A: Not Applicable
N/AV: Not Available

**Additional Product Information:**

While Radiator Specialty Company believes this data is accurate as of the revision date, we make no warranty with respect to the data and we expressly disclaim all liability for reliance thereon. The data is offered solely for information, investigation, and verification. Various government agencies may have specific regulations regarding the transportation, handling, storage, use, or disposal of this product which may not be covered by this MSDS. The user is responsible for full compliance.