**I. Basic Information:**

**Manufacturer:** RADIATOR SPECIALTY COMPANY  
**Address:** 600 RADIATOR ROAD  
**City, ST, Zip:** INDIAN TRAIL, NC 28079  
**Country:**  
**Contact:** Robert Geer  
**Information Telephone Number:** 704-684-1811  
**Emergency Contact:** Rocky Mountain Poison Control Center  
**Emergency Telephone Number:** 303-623-5716  
**Emergency Restrictions:**  
**Product Name:** LIQUID WRENCH DRY LUBE WITH CERFLON  
**MSDS No.:** L504  
**Issue Date:** 10/07/2009  
**Supersedes Date:** Not Available

**II. Hazards Identification:**

**EMERGENCY OVERVIEW**  
Danger: Flammable. 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):**  
Chronic: High levels damage the nervous system initially producing a lack of feeling in the extremities and possibly progressing to a more severe nerve damage.  
**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:** N/D  
**Other Health Warnings:**  
Vomiting and subsequent aspiration into the lungs may lead to chemical pneumonia and pulmonary edema which is a potentially fatal condition.

**Potential Environmental Effects**  
Not Available

**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>Boron Nitride</td>
<td>10043-11-5</td>
<td>1.0 - 5.0</td>
<td>Secret</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>67-63-0</td>
<td>60.0 - 100.0</td>
<td></td>
</tr>
<tr>
<td>Polytetrafluoroethylene</td>
<td>9002-84-0</td>
<td>1.0 - 5.0</td>
<td></td>
</tr>
</tbody>
</table>

**IV. First Aid Measures:**

**Emergency and First Aid Procedures:**  
**Eye Contact:** Flush eyes with clean water for 15 minutes while lifting eyelids. Get prompt medical attention.  
**Skin Contact:** Wash with soap and water thoroughly. If adverse effects persist, get prompt medical attention. Launder contaminated clothing before reuse.  
**Inhalation:** Remove to fresh air. If breathing becomes difficult give oxygen and get prompt medical attention. If breathing stops, give artificial respiration and get prompt medical attention.  
**Ingestion:** DO NOT INDUCE VOMITING! Call Poison Control Center, physician, or hospital emergency room immediately. Aspiration of vomitus into the lungs can cause pneumonitis, which can be fatal.
**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.

**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:**
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-metalic 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:**
Eliminate all ignition sources. 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.

**VII. Handling and Storage:**

**Handling 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!

**Storage Precautions:**
Do not use or store near fire, sparks, or open flame. Exposure to temperatures above 120° may cause container to vent, rupture, or burst.

**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>Polytetrafluoroethylene</td>
<td>N/D</td>
<td>N/D</td>
<td>Not Available</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>400 ppm</td>
<td>200 ppm</td>
<td>Not Available</td>
</tr>
<tr>
<td>Boron Nitride</td>
<td>N/D</td>
<td>N/D</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

**Engineering Controls:**
See Section above for applicable exposure limits. If TLV is exceeded, wear NIOSH approved respirator.

**Personal Protective Equipment:**
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 Range</td>
<td>N/D</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>180°F</td>
</tr>
<tr>
<td>Solubility In Water</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Flash Point</td>
<td>55°F</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>N/D</td>
</tr>
<tr>
<td>Vapor Density (AIR = 1)</td>
<td>N/D</td>
</tr>
<tr>
<td>pH Range</td>
<td>N/A</td>
</tr>
<tr>
<td>Decomposition Temp</td>
<td>N/D</td>
</tr>
<tr>
<td>Lower Explosive Limit</td>
<td>N/E</td>
</tr>
<tr>
<td>Specific Gravity (H2O = 1)</td>
<td>0.79</td>
</tr>
<tr>
<td>Other Information</td>
<td>N/D</td>
</tr>
<tr>
<td>Melting Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Evaporation Rate (Butyl Acetate = 1)</td>
<td>1.4</td>
</tr>
<tr>
<td>Flash Point Method</td>
<td>TCC</td>
</tr>
<tr>
<td>Appearance and Odor</td>
<td>Opaque milky liquid with alcohol odor.</td>
</tr>
<tr>
<td>Vapor Pressure (mm Hg.)</td>
<td>N/D</td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>N/D</td>
</tr>
<tr>
<td>Auto-Ignition Temp</td>
<td>N/D</td>
</tr>
<tr>
<td>Upper Explosive Limit</td>
<td>N/E</td>
</tr>
</tbody>
</table>

**X. Stability and Reactivity:**

**Stability:**

Stable

**Conditions to Avoid:**

Heat, sparks or flames. Also see incompatible materials listed below

**Incompatible Materials:**

Avoid contact with strong oxidizers

**Hazardous Decomposition Products:**

Normal products of combustion, smoke, carbon dioxide, carbon monoxide.

**Possibility of Hazardous Reactions:**

Will not occur

**XI. Toxicological Information:**

N/D

**XII. Ecological Information:**

N/D

**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 empty container and discard in the trash. Do not dump into sewers, on the ground, or into any body of water. Dispose of unused product in accordance with all local, state government and federal laws and regulations

**XIV. Transport Information:**

**Shipping Name:** Consumer Commodity

**DOT Hazard Class:** ORM-D

**UN/NA#:** Not Available

**DOT Subsidiary Hazard Class:** Not Available

**Packing Group:** Not Available

**Transportation Information:**
**XV. Regulatory Information:**

- **SARA 313 Reportable Chemicals:** Isopropyl Alcohol 67-63-0
- **USA TSCA:** All components of this material are listed on the US TSCA Inventory.
- **State RTK Chemicals:** Isopropyl Alcohol 67-63-0

**XVI. Other Information:**

- **Chemical State:**
  - Liquid: X
  - Gas: 
  - Solid: 
- **Chemical Type:**
  - Pure: 
  - Mixture: X
- **Hazard Category:**
  - Acute: X
  - Chronic Pressure: 
  - Fire: X
  - Reactive: 

**Additional Manufacturer Warnings:**

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!

**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.