MATERIAL SAFETY DATA SHEET
LPS 1 Greaseless Lubricant

Section 1 • Product and Company Identification

Manufacturer's Name: LPS Laboratories
Trade Name: LPS 1 Greaseless Lubricant
Part Numbers: 00116(aerosol) 00122, 01128, 00105, 00155
Address: 4647 Hugh Howell Road
Tucker, GA  USA 30085-5052

Chemical Family: Petroleum Distillates
Telephone Number: 770-243-8800
Emergency Telephone Number:
1-800-424-9300 Chemtrec;
Outside U.S.: (703) 527-3887
Website: http://www.lpslabs.com

PLAIN LANGUAGE HAZARD SUMMARY

Material Safety Data Sheets can be confusing. Federal and State laws require us to include a great deal of technical information that probably won't help the non-professional. LPS includes this “PLAIN LANGUAGE HAZARD SUMMARY” to address the questions and concerns of the average worker. If you have additional health, safety or product questions, don’t hesitate to call us at 800/241-8334.

Worker Toxicity

LPS 1 GREASELESS LUBRICANT is a specialized light duty lubricant designed to displace moisture and prevent rust and corrosion on steel, aluminum and other metals. LPS 1 also reduces friction, heat, noise, or wear between moving parts. It contains petroleum distillates and mineral oil that can be irritating to skin. Avoid extended exposure to unprotected skin. Don’t get it in your eyes (it stings), or breath the vapor (if working on hot surfaces or heated tanks). Vapors from heated LPS 1 can make you dizzy and even sick. For more exposure and first aid information, refer to MSDS Sections 2, 8 and 11.

Flammability

LPS 1 GREASELESS LUBRICANT is combustible having a flash point typically above 170°F and an autoignition temperature over 400°F. Under normal use conditions flammability isn’t a concern, but don’t apply the product onto red-hot metal surfaces or near sparks.

Disposal

LPS 1 in non-aerosol form is not hazardous for disposal; however, if it becomes contaminated with another substance, the resulting mixture may fall under a hazardous classification. See section 13 for more details.
Section 2 • Hazards Identification

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

Emergency Overview: DANGER: Aerosol contents under pressure. Harmful or Fatal if Swallowed.

Primary route(s) of entry: Skin and Eye contact. Inhalation.

Potential Acute Health Effects:

Eyes: Irritating to eyes

Skin: Repeated exposure may cause skin dryness or cracking.

Inhalation: Excessive inhalation of vapors can cause irritation of the respiratory tract, nausea, dizziness or headache.

Ingestion: Product has a low order of acute oral toxicity, but ingestion of large quantities may cause nausea, vomiting, and gastrointestinal irritation. May cause injury if aspirated into lungs.

Potential Chronic Health Effects:

Carcinogenic Effects: NTP: No IARC: No OSHA: No

Mutagenic Effects: None

Teratogenic Effects: None

Medical conditions aggravated by exposure: Persons with pre-existing central nervous system (CNS) disease, neurological conditions, skin disorders, chronic respiratory diseases, or impaired liver or kidney function should avoid exposure.

Signs and Symptoms

Stinging in eyes. Repeated or prolonged skin contact can cause redness, irritation, and scaling of the skin (dermatitis). Breathing of high vapor concentrations may cause headaches, stupor, irritation of throat and eyes, and kidney effects.

Section 3 • Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CASRN</th>
<th>Percent by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (Petroleum), Hydrotreated Light</td>
<td>64742-47-8</td>
<td>70 - 80%</td>
</tr>
<tr>
<td>Distillates (Petroleum), Hydrotreated Middle</td>
<td>64742-46-7</td>
<td>20 - 30 %</td>
</tr>
<tr>
<td>Carbon Dioxide propellant (aerosol only)</td>
<td>124-38-9</td>
<td>1 - 4%</td>
</tr>
</tbody>
</table>

Section 4 • First Aid Measures

Eyes: Check for and remove contact lenses. If irritation or redness develops, flush eyes with cool, clean, low-pressure water for at least 15 minutes. Hold eyelids apart to ensure complete irrigation of the eye and eyelid tissue. Do not use eye ointment. Seek medical attention immediately.
Section 4 • First Aid Measures - continued

Skin: Remove contaminated shoes and clothing. Clean affected area thoroughly with mild soap and water. Do not use ointments. Seek medical attention if irritation persists.

Inhalation: Immediately move victim to fresh air. If victim is not breathing, immediately begin rescue breathing. If heart has stopped, immediately begin cardiopulmonary resuscitation (CPR). If breathing is difficult, seek medical attention immediately.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If spontaneous vomiting is about to occur, place victim's head below knees. If victim is drowsy or unconscious, place on the left side with head down. Do not leave victim unattended. Seek medical attention immediately.

Section 5 • Fire Fighting Measures

Products of Combustion: Carbon monoxide and carbon dioxide.

Firefighting media: SMALL FIRE: Use DRY chemical powder.
    LARGE FIRE: Use water spray, fog or foam. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosions.

Sensitivity to Impact: None  Sensitivity to Static Discharge: None

Protection Clothing (Fire): Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies. Evacuate area and fight the fire from a maximum distance or use unmanned hose holders or monitor nozzles.

Special Remarks on Explosion Hazards: Aerosols may explode upon heating, spread fire and overcome sprinkler systems.

Section 6 • Accidental Release Measures

Small Spill and Leak: Absorb with an inert material and dispose of properly.

Large Spill and Leak: For large spills, secure the area and control access. Dike far ahead of a liquid spill to ensure complete collection. Pick up free liquid for disposal using absorbent pads, sand, or other inert non-combustible absorbent materials. Place into appropriate waste containers for later disposal.

Section 7 • Handling and Storage

Handling: DO NOT spray into or around ignition sources. After handling, always wash hands thoroughly with soap and water. Use only with adequate ventilation. Avoid breathing vapors or spray mists.

Storage: Keep container in a cool, well-ventilated area. Avoid all sources of ignition (spark or flame). Store below 120°F.

Precautions to be taken in handling and storage: Store aerosols as Level 3 Aerosol (NFPA 30B). Store all materials in dry, well-ventilated area. Avoid breathing vapors.
Section 8 • Exposure Controls / Personal Protection

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CASRN</th>
<th>OSHA PEL-TWA</th>
<th>ACGIH-TLV</th>
<th>Other Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (Petroleum), Hydrotreated Light</td>
<td>64742-47-8</td>
<td>Not established</td>
<td>Not established</td>
<td>100 ppm (supplier recommended TWA)</td>
</tr>
<tr>
<td>Distillates (Petroleum), Hydrotreated Middle</td>
<td>64742-46-7</td>
<td>5mg/m³ /8 hrs</td>
<td>5mg/m³ /8 hrs</td>
<td>10 mg/m³ UK ST EXP (15 min.)</td>
</tr>
<tr>
<td>Carbon Dioxide propellant (aerosol only)</td>
<td>124-38-9</td>
<td>10,000 ppm</td>
<td>5,000 ppm</td>
<td>30,000 ppm ACGIH STEL</td>
</tr>
</tbody>
</table>

**Engineering Controls:** Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits.

**Personal Protection:**

**Eyes:** Safety glasses.

**Respiratory:** Use appropriate respirator if ventilation is inadequate.

**Hands:** Use solvent resistant gloves.

**General Hygiene Considerations:** Wash thoroughly after handling. Have eye-wash facilities immediately available.

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**Section 9 • Physical and Chemical Properties**

**Appearance:** Liquid.

**Odor/Taste:** Characteristic.

**Solubility Description:** Not soluble in water.

**Boiling Point (°C):** 213 @ 760 mmHg

**Specific Gravity (Water=1):** 0.79-0.81 @ 20 °C

**Vapour Density (air=1):** >1

**V.O.C. Content:** 0 g/L

**Flammable limits (estimated):** LOWER: 0.6% UPPER: 7%

**pH:** Not applicable

**Colour:** Pale amber.

**Vapor Pressure:** <0.05mmHg @ 20 °C

**Evaporation Rate:** <0.1(BuAc=1)

**Flash Point (°C):** 79°C (175°F)

**Flash Point Method:** Tag-Closed Cup.

**Auto Ignition Temperature (°C):** >228°C (442°F)

**Partition Coefficient (octanol/water):** <1

**Viscosity:** <3.8 cSt @ 40°C
Section 10 • Stability and Reactivity

Stability and Reactivity: The product is stable.

Incompatibility with Various Substances: Extremely reactive or incompatible with oxidizing agents.

Hazardous decomposition products: These products are carbon oxides (CO, CO2)

Hazardous polymerization: Will not occur.

Section 11 • Toxicological Information

Acute and Chronic Toxicity

A: General Product Information

Following exposure to vapors, this material can produce central nervous system depression. High atmospheric concentrations can result in eye, nasal and respiratory tract irritation. However, if handled in accordance with good industrial hygiene practice, this product will not present a significant hazard in the workplace.

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CASRN</th>
<th>LC-50</th>
<th>LD-50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (Petroleum), Hydrotreated Light</td>
<td>64742-47-8</td>
<td>&gt;6.8 mg/L</td>
<td>&gt; 5 g/kg acute oral / rat</td>
</tr>
<tr>
<td>Distillates (Petroleum), Hydrotreated Middle</td>
<td>64742-46-7</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Carbon Dioxide propellant (aerosol only)</td>
<td>124-38-9</td>
<td>Not available</td>
<td>Not appropriate</td>
</tr>
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</table>

Section 12 • Ecological Information

Component Data: Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>CASRN</th>
<th>Test</th>
<th>Species</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (Petroleum), Hydrotreated Light</td>
<td>64742-47-8</td>
<td>96-hour LC50</td>
<td>Oncorhynchus mykiss</td>
<td>2,900 µg/L</td>
</tr>
<tr>
<td>Distillates (Petroleum), Hydrotreated Middle</td>
<td>64742-46-7</td>
<td>48-hour EC50</td>
<td>Daphnia magna</td>
<td>Not established</td>
</tr>
<tr>
<td>Carbon Dioxide propellant (aerosol only)</td>
<td>124-38-9</td>
<td>48-hour EC50</td>
<td>Microcystis pyridera</td>
<td>Not established</td>
</tr>
</tbody>
</table>

For the 64742-47-8 component, no toxicity has been observed in water due to extremely low water solubility. If material is spilled on soil, some potential toxic effects could occur before biodegradation could remove material.

If spilled, the 64742-46-7 constituent may kill grasses and small plants by interfering with transpiration. Spilled material may coat gill structures of fish resulting in suffocation if spilled in shallow, running water. This product may be toxic to amphibians by preventing dermal respiration. This product may also cause gastrointestinal distress to birds and mammals through ingestion. Biodegradation of this product is possible within 90 to 120 days in aerobic environments at temperatures above 21°C.
Section 13 • Disposal Considerations

Waste Status: In its purchased form, non-aerosol material does not meet the definition of a RCRA hazardous waste. However, full aerosols are a RCRA hazardous waste carrying waste code D003.

Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information inaccurate, incomplete, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive than federal laws and regulations.

Section 14 • Transport Information

Aerosols Only

<table>
<thead>
<tr>
<th>Mode</th>
<th>Shipping Name</th>
<th>Hazard Class</th>
<th>Subclass</th>
<th>UN Number</th>
<th>Technical Name</th>
<th>Hazard Label</th>
<th>Packing Group</th>
<th>Emergency Response Guide</th>
</tr>
</thead>
<tbody>
<tr>
<td>D.O.T. Ground</td>
<td>Consumer Commodity</td>
<td>ORM-D</td>
<td>NA</td>
<td>1950</td>
<td>NA</td>
<td>ORM-D</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>IATA (US)</td>
<td>Consumer Commodity</td>
<td>9</td>
<td>NA</td>
<td>8000</td>
<td>NA</td>
<td>Miscellaneous</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>IATA (non-US)</td>
<td>AEROSOLS, flammable</td>
<td>2.1</td>
<td>NA</td>
<td>1950</td>
<td>NA</td>
<td>Flammable Gas</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>IMDG (Regular)</td>
<td>AEROSOL</td>
<td>2.1</td>
<td>NA</td>
<td>1950</td>
<td>NA</td>
<td>Flammable Gas</td>
<td>NA</td>
<td>F-D, S-U</td>
</tr>
<tr>
<td>IMDG (Special)</td>
<td>Dangerous Goods in Limited quantities of Class 2</td>
<td>NA</td>
<td>NA</td>
<td>1950</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>F-D, S-U</td>
</tr>
</tbody>
</table>

Non-Aerosols of this product are not regulated by any mode of transportation.

Section 15 • Regulatory information

U.S. Federal Regulations: TSCA 8(b) inventory: All of the ingredients are listed on the TSCA inventory or are exempt.

RCRA Hazardous Waste No.: D003 (aerosols only)

CERCLA Sections 102a/103 Hazardous Substances (40 CFR part 302) Reportable Quantity: none


SARA TITLE III Section 313: No individual section 313 component is present at or above 1%.

Hazardous Air Pollutants (U.S. EPA): None


California Proposition 65: None.

California and OTC States: This product conforms to consumer regulations.
### Section 16 • Other Information

<table>
<thead>
<tr>
<th>MSDS# 10116</th>
<th>Health: [X] 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsible Name: Ed Williams</td>
<td>Flammability: 2</td>
</tr>
<tr>
<td>Technical Manager</td>
<td>Physical Hazard: 2 (aerosol) 0 (other)</td>
</tr>
</tbody>
</table>

**Notice to Reader:**
To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Ed Williams, Technical Manager
LPS Laboratories
A division of Illinois Tool Works

Form #2500