1. Identification

Product identifier LPS® Clear Penetrating Grease
Other means of identification
Part Number 06716
Recommended use A clear, fast penetrating grease designed to go on wet and quickly set-up as a tacky grease.
Recommended restrictions None known.
Manufacturer/Importer/Supplier/Distributor information
Manufacturer
Company name LPS Laboratories, a division of Illinois Tool Works, Inc.
Address 4647 Hugh Howell Rd.
Tucker, GA 30084
Country (U.S.A.)
Tel: +1 770-243-8800
In Case of Emergency
1-800-424-9300 (inside U.S.)
+001 703-527-3887 (outside U.S.)
Website www.lpslabs.com
E-mail sds@lpslabs.com

2. Hazard(s) identification

Physical hazards Flammable aerosols Category 1
Health hazards Skin corrosion/irritation Category 2
OSHA defined hazards Specific target organ toxicity, single exposure Category 3 narcotic effects

Label elements

Signal word Danger
Hazard statement Extremely flammable aerosol. Causes skin irritation. May cause drowsiness or dizziness. Very toxic to aquatic life with long lasting effects.
Precautionary statement
Prevention Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves.
Response IF ON SKIN: Wash with plenty of soap and water. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. Specific treatment (see this label). If skin irritation occurs: Get medical advice/attention.
Storage Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEPTANE</td>
<td></td>
<td>142-82-5</td>
<td>27.61</td>
<td></td>
</tr>
<tr>
<td>Petroleum Gases, Liquefied, Sweetened</td>
<td></td>
<td>68476-86-8</td>
<td>10 - &lt; 20</td>
<td></td>
</tr>
</tbody>
</table>
4. First-aid measures

Inhalation
Remove victim to fresh air and keep at rest in a position comfortable for breathing. For breathing difficulties, oxygen may be necessary. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention if symptoms persist.

Skin contact
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.

Eye contact
Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention if irritation develops and persists.

Ingestion
Call a physician or poison control center immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms/effects, acute and delayed
Irritation of eyes and mucous membranes. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Decrease in motor functions. Behavioral changes. Discomfort in the chest. Shortness of breath. Coughing. Skin irritation. Defatting of the skin. Rash. Irritating to mouth, throat, and stomach. Prolonged exposure may cause chronic effects.

Indication of immediate medical attention and special treatment needed
Provide general supportive measures and treat symptomatically. In case of shortness of breath, give oxygen. Keep victim under observation. Symptoms may be delayed.

General information
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. IF exposed or concerned: Get medical advice/attention.

5. Fire-fighting measures

Suitable extinguishing media
Powder. Dry chemicals. Carbon dioxide (CO2). Foam, water spray or fog.

Unsuitable extinguishing media
Water. Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical
Contents under pressure. Pressurized container may explode when exposed to heat or flame.

Special protective equipment and precautions for firefighters
Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Structural firefighters protective clothing will only provide limited protection.

Fire-fighting equipment/instructions
Cool containers exposed to heat with water spray and remove container, if no risk is involved. Containers should be cooled with water to prevent vapor pressure build up.

Specific methods
In the event of fire and/or explosion do not breathe fumes. Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Use water spray to cool unopened containers. Move container from fire area if it can be done without risk. Use standard firefighting procedures and consider the hazards of other involved materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Local authorities should be advised if significant spillages cannot be contained. Consider initial downwind evacuation for at least 500 meters (1/3 mile). Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep upwind. Ventilate closed spaces before entering them. Avoid inhalation of vapors and spray mists. Pay attention to flashback.

Methods and materials for containment and cleaning up
ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Prevent entry into waterways, sewer, basements or confined areas.

7. Handling and storage

Precautions for safe handling
Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Ground and bond containers when transferring material. Do not re-use empty containers. Avoid prolonged or repeated contact with skin. Use only in well-ventilated areas.
Conditions for safe storage, including any incompatibilities

Level 3 Aerosol.

Contents under pressure. Do not expose to heat or store at temperatures above 120°F/49°C as can may burst. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Avoid exposure to long periods of sunlight. Keep out of the reach of children.

8. Exposure controls/personal protection

Occupational exposure limits

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEPTANE (CAS 142-82-5)</td>
<td>PEL</td>
<td>2000 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>500 ppm</td>
</tr>
</tbody>
</table>

US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEPTANE (CAS 142-82-5)</td>
<td>STEL</td>
<td>500 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>400 ppm</td>
</tr>
</tbody>
</table>

US. NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEPTANE (CAS 142-82-5)</td>
<td>Ceiling</td>
<td>1800 mg/m3</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>440 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>350 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>85 ppm</td>
</tr>
</tbody>
</table>

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Not available.

Individual protection measures, such as personal protective equipment

Eye/face protection
Wear safety glasses with side shields (or goggles).

Skin protection
Hand protection
Chemical resistant gloves are recommended.

Other
Avoid contact with the skin. Wear appropriate chemical resistant clothing. Chemical resistant gloves.

Respiratory protection
Avoid breathing dust/fume/gas/mist/vapors/spray. If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.

Thermal hazards
Not applicable.

General hygiene considerations
When using, do not eat, drink or smoke. Do not get in eyes, on skin, on clothing. Keep away from food and drink. Wash hands after handling and before eating. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance
Liquid.

Physical state
Gas.

Form
Aerosol.

Color
Translucent.

Odor
Slight petroleum odor

Odor threshold
Not available.

pH
Not available.

Melting point
Not available.

Boiling point
Not available.

Flash point
59.00 °F (15.00 °C) Tag Closed Cup

Evaporation rate
> 1 (BuAc = 1)

Flammability (solid, gas)
Not available.

Upper/lower flammability or explosive limits

Explosive limit - lower (%)
Not available.

Explosive limit - upper (%)
Not available.

Vapor pressure
Not available.

Vapor density
> 1 (air = 1)
**Relative density**  
Not available.

**Solubility(ies)**  
Not soluble in water

**Partition coefficient (n-octanol/water)**  
Not available.

**Auto-ignition temperature**  
> 392 °F (> 200 °C)

**Decomposition temperature**  
Not available.

**Viscosity**  
~4000 cSt @25°C

**Other information**

- **Heat of combustion**  
> 30 kJ/g
- **Percent volatile**  
40 - 50 %
- **Specific gravity**  
0.73 - 0.75 @ 20°C
- **VOC (Weight %)**  
42.6 % per U.S. State and Federal Consumer Product Regulations

**10. Stability and reactivity**

**Reactivity**  
Strong oxidizing agents. Strong acids.

**Chemical stability**  
Material is stable under normal conditions. Instability caused by elevated temperatures.

**Possibility of hazardous reactions**  
Hazardous polymerization does not occur.

**Conditions to avoid**  
Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. This product may react with oxidizing agents. Reacts violently with strong acids.

**Incompatible materials**  
Avoid contact with acids and oxidizing substances.

**Hazardous decomposition products**  
Carbon oxides.

**11. Toxicological information**

**Information on likely routes of exposure**

- **Ingestion**  
May be harmful if swallowed and enters airways.
- **Inhalation**  
Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea.
- **Skin contact**  
Causes skin irritation. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
- **Eye contact**  
May be irritating to eyes.

**Symptoms related to the physical, chemical and toxicological characteristics**  
Discomfort in the chest. Shortness of breath. Narcosis. Decrease in motor functions. Coughing. Irritating to eyes, respiratory system and skin. Defatting of the skin. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea.

**Information on toxicological effects**

**Acute toxicity**  
Based on available data, the classification criteria are not met.

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPS® Clear Penetrating Grease (CAS Mixture)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute Inhalation</td>
<td>Rat</td>
<td>373.0533 mg/l, 4 Hours, estimated</td>
</tr>
<tr>
<td></td>
<td>Mouse</td>
<td>271.6407 mg/l, 2 Hours, estimated</td>
</tr>
<tr>
<td>Oral LD50</td>
<td>Mouse</td>
<td>2354.7881 g/kg, estimated</td>
</tr>
<tr>
<td>LD50</td>
<td>Rabbit</td>
<td>2354.7881 g/kg, estimated</td>
</tr>
<tr>
<td>Other LD50</td>
<td>Mouse</td>
<td>801.4908 mg/kg, estimated</td>
</tr>
</tbody>
</table>

**Components**

<table>
<thead>
<tr>
<th>HEPTANE (CAS 142-82-5)</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Inhalation</td>
<td>Rat</td>
<td>103 mg/l, 4 Hours</td>
</tr>
<tr>
<td></td>
<td>Mouse</td>
<td>75 mg/l, 2 Hours</td>
</tr>
</tbody>
</table>

Material name: LPS® Clear Penetrating Grease  
671  Version #: 01  Issue date: 04-03-2013  
SDS US  
4 / 8
Components | Species | Test Results
--- | --- | ---
Other | Mouse | 222 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation | Causes skin irritation.
Serious eye damage/eye irritation | Based on available data, the classification criteria are not met.
Respiratory sensitization | Based on available data, the classification criteria are not met.
Skin sensitization | Based on available data, the classification criteria are not met.
Germ cell mutagenicity | Based on available data, the classification criteria are not met.
Carcinogenicity | Based on available data, the classification criteria are not met.
Reproductive toxicity | Based on available data, the classification criteria are not met.
Specific target organ toxicity - single exposure | Narcotic effects. Central nervous system.
Specific target organ toxicity - repeated exposure | Based on available data, the classification criteria are not met.
Aspiration hazard | Based on available data, the classification criteria are not met.
Chronic effects | Prolonged inhalation may be harmful. Prolonged or repeated contact may cause drying, cracking, or irritation.
Further information | Symptoms may be delayed.

12. Ecological information

Ecotoxicity | Very toxic to aquatic life with long lasting effects.

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPS® Clear Penetrating Grease (CAS Mixture)</td>
<td>Fish</td>
<td>45.31 mg/l, 96 hours, estimated</td>
</tr>
<tr>
<td>Distillates Petroleum, Hydroteated Light (CAS 64742-47-8)</td>
<td>Aquatic</td>
<td>Rainbow trout, donaldson trout (Oncorhynchus mykiss)</td>
</tr>
<tr>
<td>HEPTANE (CAS 142-82-5)</td>
<td>Aquatic</td>
<td>Mozambique tilapia (Tilapia mossambica)</td>
</tr>
</tbody>
</table>

* Estimates for product may be based on additional component data not shown.

Persistence and degradability | Not inherently biodegradable.
Bioaccumulative potential | Not available.

| Partition coefficient n-octanol / water (log Kow) | HEPTANE | 4.66 |

Mobility in soil | Not available.
Other adverse effects | Not available.

13. Disposal considerations

Disposal instructions | Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not discharge into drains, water courses or onto the ground. Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazardous waste code | D003: Waste Reactive material
| D001: Waste Flammable material with a flash point <140 F |

Waste from residues / unused products | Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). Avoid discharge into water courses or onto the ground.
Contaminated packaging | Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Do not re-use empty containers.
### 14. Transport information

<table>
<thead>
<tr>
<th>DOT</th>
<th>IATA</th>
<th>IMDG</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UN number</strong></td>
<td>UN1950</td>
<td>UN1950</td>
</tr>
<tr>
<td><strong>UN proper shipping name</strong></td>
<td>Aerosols, flammable, (n-heptane), MARINE POLLUTANT</td>
<td>Aerosols, flammable</td>
</tr>
<tr>
<td><strong>Transport hazard class(es)</strong></td>
<td>2.1</td>
<td>2.1</td>
</tr>
<tr>
<td><strong>Subsidiary class(es)</strong></td>
<td>Not available.</td>
<td>-</td>
</tr>
<tr>
<td><strong>Packing group</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Special precautions for user</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Labels required</strong></td>
<td>2.1</td>
<td>N82</td>
</tr>
<tr>
<td><strong>Special provisions</strong></td>
<td>N82</td>
<td></td>
</tr>
<tr>
<td><strong>Packaging exceptions</strong></td>
<td>306</td>
<td></td>
</tr>
<tr>
<td><strong>Packaging non bulk</strong></td>
<td>304</td>
<td></td>
</tr>
<tr>
<td><strong>Packaging bulk</strong></td>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

**Material name:** LPS® Clear Penetrating Grease

**DOT**

![Flammable Gas]

**IATA; IMDG**

![Flammable Gas]
Marine pollutant

15. Regulatory information

**US federal regulations**

- **TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**
  - Not regulated.
- **CERCLA Hazardous Substance List (40 CFR 302.4)**
  - Not listed.
  - Not listed.
- **SARA 304 Emergency release notification**
  - Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

<table>
<thead>
<tr>
<th>Hazard categories</th>
<th>Immediate Hazard - No</th>
<th>Delayed Hazard - Yes</th>
<th>Fire Hazard - Yes</th>
<th>Pressure Hazard - Yes</th>
<th>Reactivity Hazard - No</th>
</tr>
</thead>
</table>

| SARA 302 Extremely hazardous substance | No |
| SARA 311/312 Hazardous chemical | No |

**Other federal regulations**

- **Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**
  - Not regulated.
- **Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**
  - Not regulated.
- **Safe Drinking Water Act (SDWA)**
  - Not regulated.
- **Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**
  - Not listed.
- **Food and Drug Administration (FDA)**
  - Not regulated.

**US state regulations**

- **US. Massachusetts RTK - Substance List**
  - HEPTANE (CAS 142-82-5)
- **US. New Jersey Worker and Community Right-to-Know Act**
  - Not regulated.
- **US. Pennsylvania RTK - Hazardous Substances**
  - HEPTANE (CAS 142-82-5)
- **US. Rhode Island RTK**
  - Not regulated.
- **US. California Proposition 65**
  - Not Listed.

**International Inventories**

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>No</td>
</tr>
<tr>
<td>Country(s) or region</td>
<td>Inventory name</td>
<td>On inventory (yes/no)*</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>No</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>No</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>No</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

<table>
<thead>
<tr>
<th>Issue date</th>
<th>04-03-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version #</td>
<td>01</td>
</tr>
<tr>
<td>Further information</td>
<td>Not available.</td>
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<table>
<thead>
<tr>
<th>HMIS® ratings</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health: 1</td>
<td></td>
</tr>
<tr>
<td>Flammability: 4</td>
<td></td>
</tr>
<tr>
<td>Physical hazard: 2</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>NFPA ratings</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health: 1</td>
<td></td>
</tr>
<tr>
<td>Flammability: 3</td>
<td></td>
</tr>
<tr>
<td>Instability: 0</td>
<td></td>
</tr>
</tbody>
</table>

Disclaimer
The information in the sheet was written based on the best knowledge and experience currently available.