Material Safety Data Sheet

Trade Name: CITGO Lithoplex Grease*
Commodity Code: 55-340
Synonyms: Grease
CAS No.: Mixture
(CAS No.: Refer to Section 1)
Citgo Index No.: 0703

Date: May 16, 1989
Technical Contact: (918) 495-5933
Medical Emergency: (318) 491-6215
Chemtrec Emergency: (800) 424-9300

Material Hazard Evaluation

Health: Non-Hazardous under ambient conditions (OHCS).
Precautionary Statement: Avoid repeated or prolonged contact. Do not inhale fumes.

HMIS Rating1: Health Flammability Reactivity

1.0 Generic Composition / Components

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS #</th>
<th>%</th>
<th>Hazard Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refined Petroleum Oils</td>
<td>64742-53-6</td>
<td>75-95</td>
<td>Oral: LD50(rat): &gt; 5g/kg</td>
</tr>
<tr>
<td></td>
<td>64742-52-5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>64742-65-0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>64742-62-7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soap and Proprietary Ingredients</td>
<td>Mixture</td>
<td>&lt;20</td>
<td>Eye and skin irritant</td>
</tr>
</tbody>
</table>

1 Hazard Rating: least-0; slight-1; moderate-2; high-3; extreme-4
Citgo assignment based on our evaluation per NFPA and NPCA guidelines.
2.0 Physical Data

Physical Hazard Classification (Per 29 CFR Part 1910.1200)

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Combustible</th>
<th>No</th>
<th>Flammable</th>
<th>No</th>
<th>Pyrophoric</th>
<th>No</th>
<th>Reactivity</th>
<th>No</th>
<th>Oxidizer</th>
<th>Yes</th>
<th>Stable</th>
</tr>
</thead>
</table>

- Boiling Point, 760 mmHg, °C(°F): ND
- Specific Gravity (60/60°F) (H₂O = 1): > 1.0
- Vapor Density (Air = 1): > 1
- % Volatiles by Volume: Negligible
- Melting Point, °C(°F): ND
- Vapor Pressure, mmHg (25°C): ND
- Solubility in H₂O, % by Weight: Slight
- Evaporation Rate (Butyl Acetate = 1): < 1
- pH of Undiluted Product: ND
- Appearance and Odor: Amber, buttery semi-solid, mild odor

3.0 Fire and Explosion Data

<table>
<thead>
<tr>
<th></th>
<th>ND</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point, COC, °C(°F)</td>
<td>ND</td>
</tr>
<tr>
<td>Flash Point, PM, °C(°F)</td>
<td>ND</td>
</tr>
<tr>
<td>Fire Point, COC, °C(°F)</td>
<td>ND</td>
</tr>
<tr>
<td>NFPA Rating²</td>
<td></td>
</tr>
<tr>
<td>Health</td>
<td>1</td>
</tr>
<tr>
<td>Flammability</td>
<td>1</td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
</tr>
</tbody>
</table>

| Flammable Limits (% by volume in air) | Lower: ND | Upper: ND |
| Extinguishing Media | CO₂, dry chemical, foam, water fog |
| Special Fire Fighting Procedure | None. |
| Unusual Fire or Explosion Hazard | None. |

4.0 Reactivity Data

- Stability: Stable.
- Conditions Contributing to Instability: Extreme heat.
- Incompatibility: Strong oxidants, strong acids.
- Hazardous Decomposition Products: CO₂, CO.
- (thermal, unless otherwise specified)
- Conditions Contributing to Hazardous Polymerization: None.

² Hazard Rating: least-0; slight-1; moderate-2; high-3; extreme-4
Citgo assignment based on our evaluation per NFPA guidelines.
5.0 Spill or Leak Procedures

Procedures if Material is Spilled:
- Contain spill, wipe up with suitable absorbing material such as rags, straw or sand. Scoop up into container.
- Report spills as required to appropriate authorities.

Waste Disposal:
- It is the responsibility of the user to determine if the material is a hazardous waste at the time of disposal.
- Check before disposing to be sure you are in compliance with all applicable laws and regulations.
- Chemtrec/RCRA Emergency Hotline Number: 800-424-9346.

Protective Measures During Repair and Maintenance of Contaminated Equipment:
- Refer to Section VII - Special Protection Information.
- Wash exposed skin thoroughly with soap and water.
- Remove and clean soiled clothing before reuse.
- Safety glasses, rubber gloves if extensive, repeated dermal contact is anticipated.

6.0 Health Hazard Data

Health Hazard Classification

(Per 29 CFR Part 1910.1200)

<table>
<thead>
<tr>
<th></th>
<th>Carcinogen</th>
<th>No</th>
<th>Corrosive</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Animal Carcinogen</td>
<td>No</td>
<td>Irritant</td>
</tr>
<tr>
<td>No</td>
<td>Suspect Carcinogen</td>
<td>No</td>
<td>Sensitizer</td>
</tr>
<tr>
<td>No</td>
<td>Mutagen</td>
<td>No</td>
<td>Teratogen</td>
</tr>
<tr>
<td>No</td>
<td>Highly Toxic</td>
<td>No</td>
<td>Target Organ</td>
</tr>
<tr>
<td>No</td>
<td>Toxic</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Product listed as Carcinogen or Potential Carcinogen by:

NTP No  IARC No  OSHA No  Other No

Toxicity Summary: General low toxicity.

Major Route(s) of Entry: Dermal contact.
Acute Exposure Symptoms

**Inhalation:** No probable hazard - only if being sprayed or if in enclosed space where hot vapors exist. Inhalation of heated vapor could cause chemical pneumonitis.

**Dermal Contact:** Normally no acute effects are expected.

**Eye Contact:** May be mild irritant.

**Injection:** Grease gun injuries may include erythema, edema, irritation.

**Ingestion:** Slight irritation to gastrointestinal tract, cramps and nausea, blockage if very large quantities involved.

Chronic Exposure

Prolonged dermal exposure may cause irritation, drying, cracking of the skin. Possible dermatitis in sensitive individuals.

Other Special Effects

None.

Medical Conditions Aggravated by Exposure

None.

First Aid and Emergency Procedures for Acute Effect

**Inhalation:** Remove to fresh air. Respiratory support, if necessary.

**Dermal:** Wash with soap and water. Do not wear heavily contaminated clothing until laundered.

**Eyes:** Flush with water.

**Ingestion:** Vomiting may be induced for large quantities.

**Injection:** Subcutaneous injection is a medical emergency. Seek medical aid immediately.

Notes to Physician: Essentially, no aspiration risk. Subcutaneous injection requires prompt surgical debridement. If not familiar with technique, seek skilled advice. On ingestion, small amount may pass through the system without causing a hazard, remove larger quantities to prevent intestinal blockage.
7.0 Special Protection Information

Ventilation Requirements: None at ambient temperatures, ventilate if fumes or mists develop.

TLV: Not established.

Specific Personal Protective Equipment:
Respiratory: None required during normal use.
Eyes: Safety goggles.
Dermal: Natural or synthetic rubber for repeated exposures.
Other Clothing or Equipment: None.

8.0 Transportation and Special Precautions

Storage: Store in cool dry area in original or equivalent container in accordance with local, state and/or federal regulations.

Caution: Empty containers may contain product residue which could include flammable or explosive vapors.

Consult appropriate Federal, State and Local authorities before reusing, reconditioning, reclaiming, recycling or disposing of empty containers and/or waste residues of this product.

DOT Information

Proper Shipping Name: Petroleum Grease
Hazard Class: Non-Hazardous
Hazard Identification Number: None assigned
Placard: None
Compatibility Category: ND
CHRIS Code: ND
9.0 Environmental Data

Product Name: CITGO Lithoplex Grease
Commodity Code: 55-340

SARA TITLE III

Section 313 - Toxic Chemicals

This product does not contain toxic chemicals of Section 313 of Title III of Superfund Amendments and Re-authorization Act of 1986 (SARA) and 40 CFR Part 372.

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>-</td>
<td>-</td>
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</table>

Section 311 - Hazard Categories

Yes No Fire Hazard
_No Acute (Immediate Health Hazard) No Sudden Release of Pressure Hazard
_No Chronic (Delayed Health Hazard) No Reactive Hazard

Section 302 (a) - Extremely Hazardous Substances

(RQ = Reportable Quantity)
(TPQ = Threshold Planning Quantity)

This product does not contain Extremely Hazardous Substances of Section 302/(A).

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS#</th>
<th>%</th>
<th>RQ lbs.</th>
<th>TPQ lbs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>-</td>
<td>-</td>
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Clean Water Act

Under Section 311 (b) (4) of the Clean Water Act, discharges of crude oil and petroleum products in any kind or form to surface waters must be immediately reported to the National Response Center: 800-424-8802.

Comprehensive Environmental, Response, Compensation & Liability Act (CERCLA) - Section 102 Hazardous Substances

<table>
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<th>RQ lbs.</th>
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Petroleum and petroleum fractions are excluded from the list of CERCLA hazardous substances by Section 101(14) of CERCLA.
10.0 Labeling

NOTE
This product has been determined not
to be a physical or a health hazard as
defined by the OSHA Hazard Communication
Standard.

ALL STATEMENTS, INFORMATION, AND DATA PROVIDED IN THIS MATERIAL SAFETY DATA SHEET ARE BELIEVED TO BE ACCURATE AND RELIABLE, BUT ARE PRESENTED WITHOUT GUARANTEE, REPRESENTATION, WARRANTY, OR RESPONSIBILITY OF ANY KIND, EXPRESSED OR IMPLIED. ANY AND ALL REPRESENTATIONS AND/OR WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE SPECIFICALLY DISCLAIMED. USERS SHOULD MAKE THEIR OWN INVESTIGATIONS TO DETERMINE THE SUITABILITY OF THE INFORMATION OR PRODUCTS FOR THEIR PARTICULAR PURPOSE. NOTHING CONTAINED HEREIN IS INTENDED AS PERMISSION, INDUCEMENT, OR RECOMMENDATION TO VIOLATE ANY LAWS OR TO PRACTICE ANY INVENTION COVERED BY EXISTING PATENTS, COPYRIGHTS OR INVENTIONS.