CITGO Petroleum Corporation
P.O. Box 3758
Tulsa, Oklahoma 74102

Material Safety Data Sheet

Trade Name: CITGO Extra Range Grease
Commodity Code: 55-332
Synonyms: Grease
CAS No.: Mixture
(Refer to Section 1)
Citgo Index No.: 0104
Date: May 31, 1994
Technical Contact: (918) 495-5933
Medical Emergency: (918) 495-4700
Chemtrec Emergency: (800) 424-9300

Material Hazard Evaluation

Health: Non-Hazardous under ambient conditions (OHCS).
Precautionary Statement: None required.

HMIS Rating1: Health 1 Flammability 1 Reactivity 0

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 Oil(s)</td>
<td>64742-53-6</td>
<td>80-90</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></td>
<td>64742-01-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>64741-88-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soap and Proprietary</td>
<td>Mixture</td>
<td>&lt; 20</td>
<td>Eye and skin irritant</td>
</tr>
<tr>
<td>Ingredients</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Hazard Rating: least-0; slight-1; moderate-2; high-3; extreme-4
Cigo 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>No</th>
<th>Combustible</th>
<th>No</th>
<th>Flammable</th>
<th>No</th>
<th>Pyrophoric</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Compressed Gas</td>
<td>No</td>
<td>Organic Peroxide</td>
<td>No</td>
<td>Reactivity</td>
</tr>
<tr>
<td>No</td>
<td>Explosive</td>
<td>No</td>
<td>Oxidizer</td>
<td>Yes</td>
<td>Stable</td>
</tr>
</tbody>
</table>

- Boiling Point, 760 mmHg, °C(°F): > 260 (> 500)
- Specific Gravity (60/60°F) (H₂O = 1): 0.91
- Vapor Density (Air = 1): > 1
- % Volatiles by Volume: NA
- Melting Point, °C(°F): ND
- Vapor Pressure, mmHg (25°C): NA
- Solubility in H₂O, % by Weight: Negligible
- Evaporation Rate (Butyl Acetate = 1): < 1
- pH of Undiluted Product: ND
- Appearance and Odor: Gray paste, soapy odor

3.0 Fire and Explosion Data

<table>
<thead>
<tr>
<th>Flash Point, COC, °C(°F)</th>
<th>244(470) - Mineral oil</th>
</tr>
</thead>
<tbody>
<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>Health: 1 Flammability: 1 Reactivity: 0</td>
</tr>
<tr>
<td>Flammable Limits (% by volume in air)</td>
<td>Lower: ND Upper: ND</td>
</tr>
<tr>
<td>Extinguishing Media</td>
<td>CO₂, dry chemical, foam, water fog</td>
</tr>
<tr>
<td>Special Fire Fighting Procedure</td>
<td>Water may spread fire.</td>
</tr>
<tr>
<td>Unusual Fire or Explosion Hazard</td>
<td>Will not flash spontaneously, may be ignited by open flame.</td>
</tr>
</tbody>
</table>

4.0 Reactivity Data

Stability: Stable.

Conditions Contributing to Instability:

- Extreme heat.

Incompatibility:

- Strong oxidants, strong acids, caustics.

Hazardous Decomposition Products:

(thermal, unless otherwise specified)

- CO₂ (CO under incomplete combustion)
- Burning of material may produce toxic oxides of organic zinc compounds.

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>No Carcinogen</th>
<th>No Corrosive</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Animal Carcinogen</td>
<td>No Irritant</td>
</tr>
<tr>
<td>No Suspect Carcinogen</td>
<td>No Sensitizer</td>
</tr>
<tr>
<td>No Mutagen</td>
<td>No Teratogen</td>
</tr>
<tr>
<td>No Highly Toxic</td>
<td>No Target Organ</td>
</tr>
<tr>
<td>No Toxic</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:** Normally no hazard, except when dense fumes develop which may cause pulmonary irritation and respiratory difficulties.

**Dermal Contact:** Mild, temporary irritant.

**Eye Contact:** Mild, temporary irritant.

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

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

Chronic Exposure

Prolonged dermal exposure may cause irritation, drying, cracking of the skin, but rarely folliculitis or dermatitis.

Other Special Effects

None.

Medical Conditions Aggravated by Exposure

None known, although may aggravate pre-existing dermatoses.

First Aid and Emergency Procedures for Acute Effect

**Inhalation:** Remove to fresh air and provide respiratory support if necessary. Seek medical aid.

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

**Eyes:** Flush with water for 15 minutes or until clear of material. If irritation persists, seek medical aid.

**Ingestion:** Vomiting may be induced for large quantities, seek medical aid.

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

Notes to Physician: If grease has accidentally been injected, apply surgical debridement procedure. If unfamiliar with technique, seek skilled advice. Ingestion of small amounts may pass through the system; larger quantities should be removed to prevent intestinal blockage and severe irritation.
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. If high concentrations of mists or fumes are expected, use approved organic respirator.

Eyes: Safety goggles.

Dermal: Oil impervious gloves for repeated exposures.

Other Clothing or Equipment: Wear body covering garments to prevent prolonged or repeated direct dermal exposure. Launder soiled work clothing before reuse.

8.0 Transportation and Special Precautions

Storage: Store in cool dry area below 150°F 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 Extra Range Grease
Commodity Code: 55-332

SARA TITLE III

Section 313 - Toxic Chemicals

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

Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organic Zinc Compounds</td>
<td>ND</td>
<td>50-100</td>
</tr>
</tbody>
</table>

Section 311 - Hazard Categories

Yes  | Not Applicable
No   | Acute (Immediate Health Hazard)
No   | Chronic (Delayed Health Hazard)

No  | Fire Hazard
No  | Sudden Release of Pressure 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>Organic Zinc Compounds</td>
<td>ND</td>
<td>50-100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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>
<thead>
<tr>
<th>Component</th>
<th>CAS#</th>
<th>%</th>
<th>RQ lbs.</th>
</tr>
</thead>
</table>

Petroleum and petroleum fractions are excluded from the list of CERCLA hazardous substances by Section 101(14) of CERCLA.

Federal Regulations

Reported in TSCA Inventory:

<table>
<thead>
<tr>
<th>Product</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components</td>
<td>x Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CALIFORNIA Proposition 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contains components that occur on lists of:</td>
</tr>
<tr>
<td>Carcinogenic Materials</td>
</tr>
<tr>
<td>Teratogenic Materials</td>
</tr>
</tbody>
</table>

NA - Not Applicable
ND - No Data
NE - Not Established
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.