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

Material Safety Data Sheet

Trade Name: CITGARD 500 Motor Oil, SAE 30
Commodity Code: 22-403
Synonyms: 
CAS No.: Mixture (Refer to Section 1)
Citgo Index No.: 0020

Date: April 22, 1991
Technical Contact: (918) 495-5933
Medical Emergency: (318) 491-6215
Chemtrec Emergency: (800) 424-9300

Material Hazard Evaluation

Health: Final Product Non-Hazardous.
Precautionary Statement: Avoid prolonged skin contact with used motor oils. Do not inhale mists or fumes.

HMIS Rating¹: Health 0 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 Oils</td>
<td>64742-65-0</td>
<td>85-95</td>
<td>Oral LD50(rat): &gt; 5g/kg</td>
</tr>
<tr>
<td></td>
<td>64740-88-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>64741-89-5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>64742-01-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>72623-87-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detergent/VI Improver/ Dispersant (contains Zinc Dialkyldithiophosphate)</td>
<td>Mixture</td>
<td>&lt;15</td>
<td>Eye irritant</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Dermal irritant &gt; 5000 mg/kg</td>
</tr>
<tr>
<td>Pour Depressant</td>
<td>Mixture</td>
<td>&lt;1</td>
<td>LD50(oral-rat): 60.3g/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Skin and eye 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.

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

CITGARD 500 Motor Oil, SAE 30 (22-403, April 22, 1991 CIN #: 0020)
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): ~399 (~750)
- Specific Gravity (60/60°F) (H₂O = 1): 0.89
- Vapor Density (Air = 1): > 1
- % Volatiles by Volume: Negligible
- Melting Point, °C(°F): NA
- Vapor Pressure, mmHg (25°C): < 1x10⁻³
- Solubility in H₂O, % by Weight: Negligible
- Evaporation Rate (Butyl Acetate = 1): < 1
- pH of Undiluted Product: NA
- Appearance and Odor: Dark amber liquid, mild odor.

3.0 Fire and Explosion Data

<table>
<thead>
<tr>
<th>Flash Point, COC, °C(°F)</th>
<th>242(468)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point, PM, °C(°F)</td>
<td>210(410)</td>
</tr>
<tr>
<td>Fire Point, COC, °C(°F)</td>
<td>260(508)</td>
</tr>
<tr>
<td>NFPA Rating</td>
<td>Health: 0 Flammability: 1 Reactivity: 20</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>None.</td>
</tr>
<tr>
<td>Unusual Fire or Explosion Hazard</td>
<td>Water may cause frothing.</td>
</tr>
</tbody>
</table>

4.0 Reactivity Data

- Stability: Stable.
- Conditions Contributing to Instability: None.
- Incompatibility: Strong oxidants, strong acids, caustics.
- Hazardous Decomposition Products: CO₂ (CO under incomplete combustion), traces of oxides of S, Zn, P and Ca.
- Conditions Contributing to Hazardous Polymerization: None.

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

Procedures if Material is Spilled:

- Remove sources of heat or ignition.
- Provide adequate ventilation.
- Small Spills: Take up with noncombustible absorbant such as fullers earth or sand. Place into containers for later disposal.
- Large Spills: Contain spill in earthen dikes for later recovery. Control ignition sources around spill area. 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.
- Treat used oil according to current rules 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 soiled clothing.
- Use polymer gloves if extended, direct contact is expected.
- Avoid prolonged contact with used oil.

6.0 Health Hazard Data

Health Hazard Classification

(Per 29 CFR Part 1910.1200)

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

Product listed as Carcinogen or Potential Carcinogen by:

NTP No IARC No OSHA No Other No

Toxicity Summary: Practically non-toxic.

Major Route(s) of Entry: Inhalation of incidental mists or vapors.
Inhalation: Low risk at ambient temperatures. Mists or fumes may cause dizziness, headache, nausea, respiratory irritation, or chemical pneumonitis.

Dermal Contact: Transient, slight irritation.

Eye Contact: Practically non-irritant.

Ingestion: Low toxicity. At a Saybolt viscosity of 500 SUS (100°F), the risk of aspiration into the lungs is reduced. If less than one ounce is ingested, material may pass through the system without harm. On ingestion of large quantities slight GI discomfort, diarrhea, and headache may occur.

Injection: Subcutaneous or intramuscular injection may cause irritation, erythema, edema.

Chronic Exposure

Dermal, prolonged and repeated exposure may cause drying of the skin.

Other Special Effects

None.

Medical Conditions Aggravated by Exposure

None.

First Aid and Emergency Procedures for Acute Effect

Inhalation: Remove from exposure to incidental fumes and provide respiratory support if necessary.

Dermal: Wash with soap and water.

Eyes: Flush with large volumes of water.

Ingestion: Induce vomiting and seek medical aid.

Injection: Seek medical aid.

Notes to Physician: Following ingestion, at a Saybolt viscosity of 500 at 100°F, the risk of aspiration into the lungs is reduced. For quantities above 1 oz., emesis or lavage may be considered. Subcutaneous injection requires prompt surgical debridement. If not familiar with technique, seek skilled advice.
7.0 Special Protection Information

Ventilation Requirements: Use in well ventilated area. In confined spaces, mechanical ventilation may be required to keep levels of certain components below mandated standards. Responsible individuals should evaluate air concentrations of specific regulated chemicals.

Permitted Threshold Air Concentrations:

<table>
<thead>
<tr>
<th></th>
<th>TLV-TWA</th>
<th>TLV-STEL</th>
<th>TLV-Ceiling</th>
<th>OSHA-PEL</th>
<th>OSHA-STEL</th>
<th>OSHA-Ceiling</th>
<th>OSHA-Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral Oil Mist</td>
<td>5 mg/m³</td>
<td>10 mg/m³</td>
<td>ND</td>
<td>5/mg/m³</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
</tbody>
</table>

Specific Personal Protective Equipment:

Respiratory: If high vapor concentration is expected, use respirator approved for organic vapors.

Eyes: Safety goggles, or chemical splash goggles if splashing is anticipated.

Dermal: Oil impervious gloves if frequent or prolonged contact is expected.

Other Clothing or Equipment: Wear body-covering work clothes to avoid prolonged or repeated exposure. Launder soiled work clothes before reuse.

8.0 Transportation and Special Precautions

Storage: Keep container tightly closed and away from heat and flame.

Caution: Avoid prolonged skin contact with used motor oils. Continuous contact with used oil has caused skin cancer in laboratory animals. After draining oil, wash skin thoroughly with soap and water. 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

<table>
<thead>
<tr>
<th>Proper Shipping Name:</th>
<th>Petroleum Lubrication Oil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard Class:</td>
<td>Non-Hazardous</td>
</tr>
<tr>
<td>Hazard Identification Number:</td>
<td>None assigned</td>
</tr>
<tr>
<td>Placard:</td>
<td>None</td>
</tr>
<tr>
<td>Compatibility Category:</td>
<td>Group 33</td>
</tr>
<tr>
<td>CHRIS Code:</td>
<td>OLB</td>
</tr>
</tbody>
</table>
9.0 Environmental Data

Product Name: CITGARD 500 Motor Oil, SAE 30  
Commodity Code: 22-403

SARA TITLE III

Section 313 - Toxic Chemicals

This product does contain toxic chemicals of Section 313 of Title III of Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

Components   CAS#        %
Zinc Dialkyldithiophosphates   68649-42-3   <4

Section 311 - Hazard Categories

Yes   Not Applicable   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).

Component   CAS#   %   RO lbs.   TPQ lbs.
None  -   -   -   -

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

Component   CAS#   %   RO lbs.

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

New Jersey Worker and Community Right-to-Know Act

Petroleum Oil
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.

Avoid prolonged skin contact with used motor oil. Continuous contact has caused skin cancer in laboratory animals. After draining oil, wash skin thoroughly with soap and water. Clean oil soaked clothing before reuse.