Section 1: Product & Company Identification

Product Name: Dry Graphite Lubricant

Product Number(s): 03094

Manufactured By:
CRC Industries, Inc. General Information (215) 674-4300
885 Louis Drive Technical Assistance (800) 521-3168
Warminster, PA 18974 Customer Service (800) 272-4620
www.crcindustries.com 24-Hr Emergency (CHEMTREC) (800) 424-9300

Section 2: Hazards Identification

Emergency Overview

Appearance & Odor: Black viscous liquid, solvent odor.

DANGER

As defined by OSHA’s Hazard Communication Standard, this product is hazardous.

Potential Health Effects:

EYE: May cause irritation, including redness, itching or a burning sensation.

SKIN: Prolonged or repeated exposure may cause irritation. Symptoms may include redness, itching or a burning sensation of the skin.

INHALATION: May cause irritation of the upper respiratory system, nervous system depression (headache, dizziness, nausea, and loss of coordination). Extreme overexposure may result in unconsciousness and possibly death.

INGESTION: Ingestion of aerosol product is not expected during normal use.

CHRONIC EFFECTS: Prolonged overexposure may cause adverse effects to the liver and urinary systems.

TARGET ORGANS: liver and urinary systems

Medical Conditions Aggravated by Exposure:
Unknown

See Section 11 for toxicology and carcinogenicity information on product ingredients.
Section 3: Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>CAS NUMBER</th>
<th>% by Wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>10 - 20</td>
</tr>
<tr>
<td>Butane</td>
<td>106-97-8</td>
<td>10 - 20</td>
</tr>
<tr>
<td>Heptane</td>
<td>142-82-5</td>
<td>40 - 50</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>&lt; 2</td>
</tr>
<tr>
<td>2-Propanol</td>
<td>67-63-0</td>
<td>20 - 30</td>
</tr>
<tr>
<td>Graphite</td>
<td>7782-42-5</td>
<td>&lt; 2</td>
</tr>
</tbody>
</table>

Section 4: First Aid Measures

Eye Contact: Immediately flush with plenty of water for 15 minutes. Call a physician if irritation persists.

Skin Contact: Remove contaminated clothing and wash affected area with soap and water. Call a physician if irritation persists. Wash contaminated clothing prior to re-use.

Inhalation: Remove person to fresh air. Keep person calm. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Call a physician.

Ingestion: Do not induce vomiting. Get medical attention immediately.

Note to Physicians: Treat symptomatically.

Section 5: Fire-Fighting Measures

Flammable Properties: This product is extremely flammable in accordance with aerosol flammability definitions (16 CFR 1500.3(c)(6)).

Flash Point: < 0 F
Autoignition Temperature: ND
Upper Explosive Limit: ND
Lower Explosive Limit: ND

Suitable Extinguishing Media: Carbon dioxide, dry chemical, foam

Products of Combustion: Carbon dioxide and carbon monoxide

Protection of Fire-Fighters: Firefighters should wear self-contained, NIOSH-approved breathing apparatus for protection against suffocation and possible toxic decomposition products. Proper eye and skin protection should be provided. Use water spray to keep fire-exposed containers cool and to knock down vapors which may result from product decomposition.
**Section 6: Accidental Release Measures**

**Personal Precautions:** Use personal protection recommended in Section 8.

**Environmental Precautions:** Take precautions to prevent contamination of ground and surface waters. Do not flush into sewers or storm drains.

**Methods for Containment & Clean-up:** Remove all sources of ignition. Dike area to contain spill. Ventilate the area with fresh air. If in confined space or limited air circulation area, clean-up workers should wear appropriate respiratory protection. Recover or absorb spilled material using an absorbent designed for chemical spills. Place used absorbents into proper waste containers.

**Section 7: Handling and Storage**

**Handling Procedures:** Keep away from heat, sparks, and open flame. Vapors will accumulate readily and may ignite explosively. During use and until all vapors are gone: Keep area ventilated. Do not smoke. Extinguish all flames, pilot lights, and heaters. Turn off stoves, electric tools and other appliances, and any other source of ignition.

**Storage Procedures:** Store in a cool dry area out of direct sunlight. Aerosol cans must be maintained below 120 F to prevent cans from rupturing. Store out of reach of children.

**Aerosol Storage Level:** III

**Section 8: Exposure Controls/Personal Protection**

**Exposure Guidelines:**

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>OSHA TWA</th>
<th>ACGIH TWA</th>
<th>OTHER SOURCE</th>
<th>UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propane</td>
<td>1000 NE</td>
<td>1000 NE</td>
<td>NE</td>
<td>ppm</td>
</tr>
<tr>
<td>Butane</td>
<td>800 NE</td>
<td>1000 NE</td>
<td>NE</td>
<td>ppm</td>
</tr>
<tr>
<td>Heptane</td>
<td>500 NE</td>
<td>400 500 NE</td>
<td>NE</td>
<td>ppm</td>
</tr>
<tr>
<td>Toluene</td>
<td>100 150</td>
<td>20 NE</td>
<td>NE</td>
<td>ppm</td>
</tr>
<tr>
<td>2-Propanol</td>
<td>400 NE</td>
<td>200 400 NE</td>
<td>NE</td>
<td>ppm</td>
</tr>
<tr>
<td>Graphite</td>
<td>2.5 NE</td>
<td>2 NE</td>
<td>NE</td>
<td>mg/m³</td>
</tr>
</tbody>
</table>

N.E. – Not Established (c) – ceiling (s) – skin (v) – vacated

**Engineering Controls:** Area should have ventilation to provide fresh air. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at the source, preventing dispersion into the general work area. Use mechanical means if necessary to maintain vapor levels below the exposure guidelines. If working in a confined space, follow applicable OSHA regulations.

**Respiratory Protection:** None required for normal work where adequate ventilation is provided. If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies.
Product Name: Dry Graphite Lube

Eye/face Protection: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

Skin Protection: Use protective gloves such as neoprene or nitrile. Also, use full protective clothing if there is prolonged or repeated contact of liquid with skin.

Section 9: Physical and Chemical Properties

Physical State: Liquid
Color: Black
Odor: Solvent
Specific Gravity: 0.66
Initial Boiling Point: ND
Freezing Point: ND
Vapor Pressure: ND
Vapor Density: > 1 (air = 1)
Evaporation Rate: > 1 (ether = 1)
Solubility: ND
pH: NA
Volatile Organic Compounds: wt %: 98.8 g/L: 652.1 lbs./gal: 5.43

Section 10: Stability and Reactivity

Stability: Stable
Conditions to Avoid: Sources of ignition; temperature extremes
Incompatible Materials: None known
Hazardous Decomposition Products: Carbon dioxide and carbon monoxide
Possibility of Hazardous Reactions: No

Section 11: Toxicological Information

Long-term toxicological studies have not been conducted for this product. The following information is available for components of this product.

ACUTE EFFECTS

<table>
<thead>
<tr>
<th>Component</th>
<th>Test</th>
<th>Result</th>
<th>Route</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Propanol</td>
<td>LD50</td>
<td>12,800 mg/kg</td>
<td>Dermal</td>
<td>Rabbit</td>
</tr>
<tr>
<td>2-Propanol</td>
<td>LC50</td>
<td>16,000 ppm/8H</td>
<td>Inhalation</td>
<td>Rat</td>
</tr>
<tr>
<td>Toluene</td>
<td>LD50</td>
<td>5000 mg/kg</td>
<td>Oral</td>
<td>Rat</td>
</tr>
</tbody>
</table>

CHRONIC EFFECTS

Carcinogenicity:

<table>
<thead>
<tr>
<th>OSHA:</th>
<th>Component</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>None listed</td>
<td>None listed</td>
<td></td>
</tr>
<tr>
<td>None listed</td>
<td>None listed</td>
<td></td>
</tr>
<tr>
<td>None listed</td>
<td>None listed</td>
<td></td>
</tr>
</tbody>
</table>
Section 12: Ecological Information

Ecological studies have not been conducted for this product. The following information is available for components of this product.

Ecotoxicity: No information available.
Persistence / Degradability: No information available.
Bioaccumulation / Accumulation: No information available.
Mobility in Environment: No information available.

Section 13: Disposal Considerations

Disposal: The dispensed liquid product is a RCRA hazardous waste for the characteristic of ignitability with a waste code of D001. (See 40 CFR Part 261.20 – 261.33).
Aerosol containers should be fully emptied and depressurized before disposal. Empty containers may be recycled.

All disposal activities must comply with federal, state and local regulations. Local regulations may be more stringent than state or national requirements.

Section 14: Transport Information

Proper shipping description:

US DOT (ground): Consumer Commodity, ORM-D
Special Provisions: None

Section 15: Regulatory Information

U.S. Federal

Toxic Substances Control Act (TSCA):
All ingredients are either listed on the TSCA inventory or are exempt.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):

Reportable Quantities (RQ's) exist for the following ingredients: Toluene (1,000 lbs)

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Superfund Amendments Reauthorization Act (SARA) Title III:

Section 302 Extremely Hazardous Substances (EHS): None

Section 311/312 Hazard Categories:
- Fire Hazard: Yes
- Reactive Hazard: No
- Release of Pressure: Yes
Product Name: Dry Graphite Lube

Product Number (s): 03094

Acute Health Hazard: Yes
Chronic Health Hazard: Yes

Section 313 Toxic Chemicals: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

Toluene (1%)

Clean Air Act:
Section 112 Hazardous Air Pollutants (HAPs): Toluene

State Regulations

California Safe Drinking Water and Toxic Enforcement Act (Prop 65):
This product may contain the following chemicals known to the state of California to cause cancer, birth defects or other reproductive harm: Toluene

State Right to Know:
New Jersey: 74-98-6, 106-97-8, 142-82-5, 108-88-3, 67-63-0
Massachusetts: 74-98-6, 106-97-8, 142-82-5, 108-88-3, 67-63-0

Additional Regulatory Information: None

Section 16: Other Information

NFPA: Health: 2 Flammability: 4 Reactivity: 0
HMIS: Health: 2 Flammability: 4 Reactivity: 0
PPE: B

Prepared By: Michelle Rudnick
CRC #: 03094
Revision Date: 12/30/2010

Changes since last revision: MSDS reviewed and revision date updated

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC Industries’ knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label.

CAS: Chemical Abstract Service
ppm: Parts per Million
TCC: Tag Closed Cup
PMCC: Pensky-Martens Closed Cup
PPE: Personal Protection Equipment
TWA: Time Weighted Average
OSHA: Occupational Safety and Health Administration
ACGIH: American Conference of Governmental Industrial Hygienists
NIOSH: National Institute of Occupational Safety & Health