## DESCRIPTIVE FEATURES OF PARKER'S O-Lube 5/19/15

**Description:** Barium Grease

Water ContentCGrease Number#Pour Point (open cup)4Flash Point (open cup)4Fire Point4ASTM D217 Penetration @ 77°F2ASTM Drop Point4ASH Sulfate1Specific GravityLPhysical Data:Boiling Point (°F)<br/>Specific Gravity7

Boiling Point (°F) Specific Gravity Vapor Pressure Percent, Volatile by Volume (%) Vapor Density (Air = 1) Evaporation Weight Solubility in Water Appearance and Odor 0.2% max #2 NLGI 485°F max 435°F min 485°F min 265-295 400°F min 14.25% max Less than 1.0 (.9007 to .9129)

700 Less than 1.0 N/A N/A Less than 1.0 Negligible Semi-Solid, Amber Color, No Odor

# PARKER SUPER O-LUBE SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing, Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

## 5/19/15

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| Section | L |

|  | Section I  |  |
|--|--|--|
| Product Name:  | Parker O-Lube  |  |
| Recommended Use:                                     | Lubricant (not for incidental food contact ormedical purpose)      |  |
| Company:   | Parker Hannifin Corp., O-Ring Division                             |  |
|  | 2360 Palumbo Drive, PO Box 11751                                   |  |
|  | Lexington, KY 40512  |  |
| Emergency Telephone No.                              | (859) 269-2351   |  |
| Section II - Hazards Identification                  |  |  |
| Classification:                                      | Category 5, Acute Toxicity – No Symbol                             |  |
| I sheling  | Symbol: None   |  |
| Labering.  | Signal Word: Warning   |  |
|  | Hazard Statements: May be barmful if swallowed: May cause eve      |  |
|  | irritation; May cause skin irritation.                             |  |
| Precautionary Statements:                            | Use personal protective equipment as required. Wear safety         |  |
|  | glasses and gloves. Avoid contact with eves. Nonflammable or       |  |
|  | combustible, but may burn if involved in a fire.                   |  |
| Section III – Composition/Information on ingredients |  |  |
| Chemical Identity:                                   | Barium Fatty Acid Complex, 13-17%                                  |  |
| Common Name:   | None   |  |
| CAS Number:  | 68201-19-4   |  |
| Impurities:  | No information provided by manufacturer                            |  |
| Chemical Identity:                                   | Mineral Oil, 83-87%  |  |
| Common Name:   | None   |  |
| CAS Number:  | 64742-52-5   |  |
| Impurities:  | No Information provided by manufacturer                            |  |
| Section IV – First Aid Measures                      |  |  |
| Eye Contact:   | Flush eyes with large amounts of water. If signs/symptoms persist, |  |
|  | get medical attention. Obtain medical attention.                   |  |
| Skin Contact:  | Wash affected area with soap and water. If signs/symptoms persist, |  |
|  | get medical attention. No need for first aid is anticipated.       |  |
| Inhalation:  | If signs/symptoms develop, remove person to fresh air. If          |  |
|  | signs/symptoms persist, get medical attention.                     |  |
| Ingestion:   | If swallowed, do not induce vomiting. If irritation or discomfort  |  |
|  | occurs, obtain medical attention.                                  |  |

## **Section V – Fire Fighting Measures**

| Autoignition Temperature:<br>Flash Point:<br>Flammable Limits (LEL):<br>Flammable Limites (UEL): | >200°C (392°F)<br>>176°C (348°F)<br>Not Determined<br>Not Determined  |
|--|---|
| Suitable Extinguishing Media:  | On large fires use dry chemical, foam or water spray. On small fires use carbon dioxide (CO2), dry chemical or water spray. Water can be used to cool fire exposed containers.  |
| Unsuitable Extinguishing Media:  | None  |
| Specific hazards in case of fire:  | Decomposes on heating and can release formaldehyde. Avoid reaction with oxidizers.  |
| Special protective equipment and precaution  | No acute hazard. Move container from fire area if possible. Avoid<br>breathing vapors and dusts. Keep upwind. Use full firefighting gear<br>(bunker gear). Any supplied-air respirator with full face piece and<br>operated in a pressure-demand or other positive pressure mode in<br>combination with a separate escape air supply. Use any self-<br>contained breathing apparatus with a full face piece.<br>Alert fire brigade and indicate hazard location. Wear breathing<br>apparatus plus protective clothing. Cool fire exposed containers<br>with water spray from a protected location. Do not approach<br>containers suspected to be hot. If so to do so, remove containers<br>from path of fire. |
| Section VI – Accidental Release Measures   |   |
| Personal precautions:  | Use appropriate person protection. (See section 8)  |

| Environmental precautions: | For larger spills, cover drains and build dikes to prevent entry into |
|----------------------------|---|
|                            | sewer systems or bodies of water. Collect the resulting residue       |
|                            | containing solution. Place in a metal container approved for          |
|                            | transportation by appropriate authorities. Dispose of collected       |
|                            | materials as soon as possible.  |

#### Methods for material containment and cleaning up:

Observe precautions from other sections. Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible. Clean up residue with an appropriate solvent. Seal the container.

# Section VII – Handling and Storage

| Precautions for safe handling: | Avoid contact with skin, inhalation of mist, or ingestion. | See section |
|--------------------------------|--|-------------|
|--------------------------------|--|-------------|

8 for personal protection equipment. Practice good personal hygiene to prevent accidental ingestion after handling. Properly dispose of clothing that cannot be decontaminated.

#### Conditions for safe storage, including any incompatibilities:

Store away from oxidizing materials. Store product in a closed container located in a dry area. Do not store in open, inadequate, or mislabeled packaging. Check that containers are clearly labeled. Use metal cans, metal drums, plastic, or lined fiber containers. Keep away from heat and flame.

## Section VIII – Exposure Controls / Personal Protection

| Control parameters:                  | Under most handling conditions, this product will not generate mist or dust.   |
|--------------------------------------|--|
| Engineering controls:                | In most conditions, no special local ventilation is needed. General ventilation recommended. If the product is heated about 150°F or atomized, ventilation should be used. |
| Personal Protective Equipment (PPE): |  |
| Eyes:                                | Safety glass recommended   |
| Skin:                                | Impermeable gloves should be worn. Product is compatible with most elastomers.   |
| Inhalation:                          | No respiratory protection required under most conditions. If<br>concentrations exceed exposure limits, approved respiratory<br>equipment must be used.                     |

## Section IX – Chemical and Physical Properties

| Physical State:            | Solid. Liquid may separate from product                     |
|----------------------------|---|
| Color:                     | Amber   |
| Odor:                      | Mild  |
| Odor Threshold:            | Not available   |
| pH Value:                  | Not applicable  |
| Melting Point:             | 204°C   |
| Freezing Point:            | Becomes very stiff with decreasing temperature around -20°C |
| Initial Boiling Point:     | >200°C  |
| Flash Point:               | 176°C COC (base oil)  |
| Evaporation Rate:          | Not available   |
| Flammability (solid, gas): | Not applicable  |
| Explosion Limits:          | Not available   |
| Vapor Pressure:            | Negligible at 20 °C   |
| Vapor Density:             | Not available   |
| Solubility:                | Insoluble in water at 20°C                                  |
| Partition Coefficient:     | Not available   |
| Auto-ignition Temperature: | Not available   |
| Decomposition Temperature: | Begins to oxidize at a slow rate at 125°C                   |

# Section X – Stability and Reactivity

| Chemical Stability:                 | Stable under ambient temperatu   | res and pressures.                 |
|-------------------------------------|----------------------------------|------------------------------------|
| Possibility of hazardous reactions: | Can react with strong oxidizers. | Other hazardous reactions have not |

| Conditions to Avoid:<br>Materials to Avoid:<br>Hazardous decomposition products: | been identified. Otherwise will not react or polymerize.<br>No specific conditions to avoid have been identified.<br>Oxidizers<br>Decomposes on heating and produces formaldehyde, silicone<br>dioxide, and completely burned carbon dioxide.  |  |
|--|--|--|
| Sectio   | n XI – Toxicological Information   |  |
| Barium Acetate (Similar material to barium                                       | fatty acid complex)<br>Ingestion LD₅₀ (rat) 921 mg/kg<br>Causes damages to lungs, nervous system, and mucous<br>membranes. Very hazardous in case of ingestion. Slightly<br>hazardous in case of skin contact (irritant). Excreted in maternal<br>milk in animal. Passes though placental barrier in human.  |  |
| Mineral Oil  | Ingestion LD <sub>50</sub> (rat) >5,000 mg/kg, Dermal LD <sub>50</sub> (rabbit) >5,000 mg/kg, Inhalation LC <sub>50</sub> (rat) >5 mg/L 4h Expected to be slightly irritating to skin and eyes. Inhalation of vapors can cause irritation to the respiratory system. Not expected to be skin sensitizer or aspiration hazard. Not considered to be mutagenic hazard. Not classified as carcinogenic. |  |
| Section  | on XII – Ecological Information  |  |
| Toxicity:<br>Barium Fatty Acid Complex   |  |  |
|  | Water soluble barium compounds formed after chemical break down are significantly more hazardous than the material as supplied.  |  |
| Mineral Oil  | Practically nontoxic to fish, aquatic invertebrates, algae, and microorganisms LL/EL/IL <sub>50</sub> >100 mg/L Chronic toxicity for fish NOEC/NOEL > 100 mg/L, aquatic invertebrates NOEC/NOEL >1.0 - <= 10 mg/L  |  |
| Section XIII – Disposal Procedures   |  |  |
| Waste treatment methods:   | Waster (substance and container material) shall be<br>recycled/recovered or disposed of as applicable and in accordance<br>with community (EU) and local legislation. Recycle wherever<br>possible. Consult state land waste management authority for<br>disposal. Bury at an approved site. Recycle containers if possible,<br>or dispose of in an authorized landfill.                             |  |
| According to the European Waste Catalog  | ue:  |  |
|  | Waster codes are not product specific but application specific.<br>Waste codes should be assigned by the user based on the<br>application in which the product is used.  |  |
| For USA Disposal:  | Waste must be disposed of in accordance with federal, state, and local environmental control regulations.  |  |

# Section XIV – Transport Information

Class or Type:

US DOT, IMO, ADR, RID, ADN, IMDG, and IATA: Non-hazardous

# Section XV – Regulatory Information

| Safety health and environmental regul   | ations/legislations specific for the mixture:  |  |
|---|--|--|
| Other Information:  |  |  |
| U.S. Regulatory information   | N/   |  |
| TSCA Inventory Status:  | Y<br>Not lists d   |  |
| TSCA 12 (b) Export Notification:  |  |  |
| CERCLA Section 103 (40 CFR 3)   | JZ.4): IN  |  |
| SARA Section 302 (40 CFR 355.   | 30): N   |  |
| SARA Section 304 (40 CFR 355.   | 40): N<br>25) Decimana de 20001 40 4   |  |
| SARA Section 313 (40 CFR 372.   | 65): Barium compounds 68201-19-4   |  |
| OSHA Process Safety (29 CFR 1   | 910.119): N  |  |
| SARA Hazard Categories, SARA  | Sections 311/312 (40 CFR 370.21)-  |  |
| Acute Hazard:   | N  |  |
| Chronic Hazard:   | N  |  |
| Fire Hazard:  | N  |  |
| Reactivity Hazar  | d: N   |  |
| Sudden Release  | Hazard: N  |  |
| State Regulations:  | Not on California Proposition 65 List. Does not contain any                                  |  |
|   | contaminants or by-products known to the State of California to                              |  |
|   | cause cancer or reproductive toxicity.   |  |
| Note:   | There are no known safety, health, or environmental restrictions or                          |  |
|   | prohibitions in any country where this product is produced, imported                         |  |
|   | or marketed.   |  |
| Chemical Inventories:   |  |  |
| DSI (Canada)  | All ingredients listed or exempt   |  |
| EINECS (European Union)   | All ingredients listed or exempt   |  |
| ENCS/ISHI (Japan)   | All ingredients listed or exempt   |  |
| IECSC (Booples Bopublic of China)   | All ingredients listed or exempt   |  |
| TECSC (Feoples Republic of China)   | All ingredients listed or exempt   |  |
| TSCA (United States of America)   | An ingredients instea of exempt  |  |
| :   | Section XVI – Other Information  |  |
| NFPA Hazard Classification:   |  |  |
| Health:   | 2  |  |
| Flammability:   | 1  |  |
| Reactivity:   | )  |  |
| Special Hazards:  | None   |  |
| National Fire Protection Associations (NF   | PA) hazard ratings are designed for use by emergency personnel to address the hazards        |  |
| that are presented by short-term, acute e   | xposer to material under conditions of fire, spill, or similar emergencies. Hazard ratings   |  |
| are primarily based on the inherent physi   | cal and toxic properties of the material but also include the toxic properties of combustion |  |
| or decomposition products that are known to be generated in significant quantities. |  |  |
| HMIS Hazard Classification  |  |  |

| HIVIIS Hazaru Classification. |             |
|-------------------------------|-------------|
| Health:                       | 2           |
| Flammability:                 | 1           |
| Reactivity:                   | 0           |
| Protection:                   | B (See PPE) |

Hazardous Material Identification System (HMIS) hazard ratings are designed to inform employees of chemical hazards in the workplace. The ratings are based on inherent properties of the material under expected conditions of normal use and not intended for use in emergency situations.

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These data are offered in good faith as typical values and not as product specification. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

Recommendations on application design and material selection are based on available technical data and are offered as suggestions only. Each user should make his own tests to determine the suitability for his own particular use. Parker offers no express or implied warranties concerning the form, fit, or function of a product in any application.