

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Star Premium Oils Hydraulic 46 Oil**Product Code:** 712**Product Use:** Hydraulic Fluid**Chemical Name:** Petroleum Oil; Lube Oil, Petroleum hydrocarbon, Lubricant**Product Use:** For Transportation and Industrial Applications**Manufacturer:** Lubricants LLC  
6 Horwith Drive  
Northampton, PA 18067**Emergency Telephone Numbers:** 484-619-1393  
Information: 484-275-7990 8am-5pm EST M-F

## 2. HAZARD IDENTIFICATION

**WARNING****GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910.1200 (OSHA HC)**

May cause eye irritation, Category 2B H320

May cause skin irritation, Category 3 H316

May cause respiratory irritation, Category 3 H335

Harmful if swallowed, Category 4 H303

Harmful to aquatic life, Category 4 H412

**INHALATION:** Not likely to present an inhalation hazard at normal temperatures and pressures. However, when aerosolizing, misting, or heating of this product, high concentrations of generated vapor or mist may irritate the respiratory tract (nose, throat, and lungs).**INGESTION:** May be harmful if swallowed. May cause throat irritation, nausea, vomiting, and diarrhea. Breathing product into the lungs during ingestion or vomiting may cause lung injury.**EYE CONTACT:** May cause irritation.**SKIN CONTACT:** May cause irritation. Not likely to be absorbed through the skin in harmful amounts. **MEDICAL****CONDITIONS AGGREGATED BY EXPOSURE:** Individuals with pre-existing respiratory tract (nose, throat, and lungs) eye and/or skin disorders may have increased susceptibility to the effects of exposure.**CHRONIC:** Prolonged or repeated inhalation of oil mist may cause oil pneumonia, lung tissue inflammation, and/or fibrous tissue formation. Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball (conjunctivitis). Prolonged or repeated skin contact may cause drying, cracking, redness, itching, and/or swelling (dermatitis).**POTENTIAL ENVIRONMENTAL EFFECTS:** Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Wt. Percent	Component	Synonym	CAS#
0-100	Highly refined petroleum lubricating oil	Lubricating oil base stock	Various*
0 – 0.3	2,6 Di-tert-butyl-p-cresol	N/A	128-37-0
0 - 0.3	Zinc dialkyl dithiophosphate	N/A	68649-42-3

**Component Related Regulatory Information**

\*Highly refined petroleum lubricating oil contains one or more CAS numbers listed as follows:

64741-88-4, 64742-52-5, 64742-54-7, 64742-55-8, 64742-65-0, 64742-57-0, 64742-01-4, 64742-62-7, 72623-88-7

#### 4. FIRST AID MEASURES

**INHALATION:** Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Oxygen should only be administered by qualified personnel. Someone should stay with victim. Get medical attention if breathing difficulty persists.

**EYE CONTACT:** If irritation or redness from exposure to vapor develops, move away from exposure into fresh air. Upon contact, flush with lukewarm water, holding eyelids apart for 15 minutes. If irritation persists, obtain medical assistance.

**SKIN CONTACT:** Remove affected clothing and shoes. Wash with soap and water. Get medical attention if irritation or pain develops or persists. If product is injected under pressure into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, a physician should immediately evaluate the individual as a medical emergency. Wash clothing before reuse.

**INGESTION:** Do NOT induce vomiting. Immediately get medical attention. If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything to an unconscious person by mouth.

**NOTE TO PHYSICIANS:** Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident.

#### 5. FIRE FIGHTING MEASURES

**FLASHPOINT (METHOD):** 294°F (145.5°C) Minimum

**FLAMMABLE LIMITS IN AIR:** Not Available

**AUTO-IGNITION TEMP:** Not Available

**EXTINGUISHING MEDIA:** Carbon dioxide (CO<sub>2</sub>), regular foam, dry chemical, water spray, or water fog. Water or foam may cause frothing..

**HAZARDOUS COMBUSTION PRODUCTS:** Decomposition and combustion material may be toxic. Burning may product sulfur oxides, aldehydes, ketones, carbon monoxide and unidentified organic compounds.

**HAZARD RATING**

0= LEAST  
1=SLIGHT  
2=MODERATE  
3=HIGH  
4=EXTREME

**NFPA 704 HAZARD IDENTIFIACION**

HEALTH HAZARD (BLUE)	1
FIRE HAZARD (RED)	1
REACTIVITY (YELLOW)	0
SPECIFIC HAZARD (WHITE)	

**FIRE FIGHTING INSTRUCTIONS:** Keep storage containers cool with water spray. A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

**FIRE AND EXPLOSION HAZARDS:** Heated containers may rupture. "Empty" containers may retain residue and can be dangerous. Products are not sensitive to mechanical impact or static discharge.

#### 6. ACCIDENTAL RELEASE MEASURES

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean spark-proof tool into a sealable container for disposal. Additionally, for large spills: Dike far ahead of liquid spill for collection and later disposal.

#### 7. HANDLING AND STORAGE

**HANDLING:** Keep away from sparks or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean tools. When transferring large volumes of product, metal containers, including trucks

and tank cars, should be grounded and bonded. This product has a low vapor pressure and is not expected to present an inhalation hazard under normal temperatures and pressures. However, when aerosolizing, misting, or heating, this product, do not breathe vapor or mist. Use in a well-ventilated area. Avoid contact with eyes, skin clothing and shoes. **SHIPPING AND STORRING:** Keep container tightly closed when not in use and during transport. Store containers in a cool, dry place. Do not pressurize, cut weld, braze, solder, drill or grind containers. Keep containers away from flame, sparks, static electricity, or other sources of ignition. Empty product containers may retain residue and can be dangerous.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### EXPOSURE GUIDELINES:

#### COMPONENT EXPOSURE LIMITS

##### Highly Refined Petroleum Lubricating Oil

ACGIH: 5mg/m<sup>3</sup> TWA (sampled by method that does not collect vapor) (related to Oil mist, mineral)  
 10 mg/m<sup>3</sup> STEL (sampled by method that does not collect vapor) (related to Oil mist, mineral)  
 OSHA Final: 5 mg/m<sup>3</sup> TWA (related to Oil mist, mineral)  
 OSHA Vacated: 5mg/m<sup>3</sup> TWA (related to Oil Mist, mineral)  
 NIOSH: 5mg/m<sup>3</sup> TWA (related to Oil Mist, mineral)  
 10mg/m<sup>3</sup> STEL (related to Oil mist, mineral)

##### Mineral Oil

ACGIH: 5mg/m<sup>3</sup> TWA (sampled by method that does not collect vapor) (related to Oil mist, mineral)  
 10 mg/m<sup>3</sup> STEL (sampled by method that does not collect vapor) (related to Oil mist, mineral)  
 OSHA Final: 5mg/m<sup>3</sup> TWA (related to Oil Mist, mineral)

##### 2,6 Di-tert-butyl-p-cresol (128-37-0)

ACGIH: 2mg/m<sup>3</sup> (inhalable fraction and vapor))  
 OSHA: 10 mg/m<sup>3</sup> TWA  
 NIOSH: 10 mg/m<sup>3</sup> TWA

**ENGINEERING CONTROLS:** Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits..

#### PERSONAL PROTECTIVE EQUIPMENT —

**EYE:** Splash proof chemical goggles are recommended to protect against splash of product.

**GLOVES:** Protective gloves recommended when prolonged skin contact cannot be avoided. The following glove materials are acceptable: polyvinyl chloride (PVC); neoprene; nitrile; polyvinyl alcohol; Viton.

**RESPIRATOR:** No respiratory protection is normally required. Use NIOSH-certified P- or R- series particulate filter and organic vapor cartridges when concentration of vapor or mist exceeds applicable exposure limits. Protection provided by air purifying respirators is limited. Do not use N-rated respirators. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 19010.134; or in Canada with CSA Standard Z94.4. Consult a qualified Industrial Hygienist or Safety Professional for respirator selection guidance. Concentration in air determines protection needed.

**OTHER:** If contact is unavoidable, wear chemical resistant clothing. The following materials are acceptable as protective clothing materials: polyvinyl alcohol (PVA); polyvinyl chloride (PVC); neoprene; nitrile; viton; polyurethane; launder soiled clothes.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>APPEARANCE/ODOR:</b>	AMBER FLUID/SLIGHT ODOR.	<b>BOILING POINT:</b>	HIGH
<b>VAPOR PRESSURE:</b>	LESS THAN 0.1 mm Hg AT 68°F (20°C)	<b>MELTING POINT:</b>	N/A
<b>MOLECULAR WEIGHT:</b>	N/A	<b>PACKING DENSITY:</b>	N/A
<b>SOLUBILITY IN WATER:</b>	INSOLUBLE	<b>EVAPORATION RATE:</b>	N/A
<b>ODOR THRESHOLD:</b>	N/A	<b>VAPOR DENSITY:</b>	>1 (AIR =1)
<b>Ph:</b>	N/A	<b>FLAMABILITY:</b>	N/A
09/28/2015			N/A – Not Applicable

FLASH POINT: 294°F (145.5°C) Minimum

AUTOIGNITION TEMP:

SPECIFIC GRAVITY: 0.87 ESTIMATED (WATER=1 APPROXIMATELY)

N/A

RELATIVE DENSITY: 0.87 g/cm<sup>3</sup> at 60°F (15.5°C)

## 10. STABILITY AND REACTIVITY

**STABILITY:** Stable under normal temperatures and pressures. Avoid sparks, or flame.

**INCOMPATIBLE MATERIALS:** Avoid oxidizing agents.

**REACTIVITY:** Polymerization is not known to occur under normal temperatures and pressures. Not reactive with water.

**HAZARDOUS DECOMPOSITION:** None under normal temperatures and pressures. Also see **Section 5 : HAZARDOUS COMBUSTION PRODUCTS.**

## 11. TOXICOLOGICAL INFORMATION

**ROUTES OF EXPOSURE:** Skin, Eyes, Ingestion, and Inhalation.

**ACUTE EFFECTS:** May be harmful if swallowed. May irritate eyes and skin. May cause throat irritation, nausea, vomiting and diarrhea. Aspiration hazard: Breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

**REPEATED DOSE EFFECTS:** Prolonged or repeated inhalation of oil mist may cause oil pneumonia, lung tissue inflammation, and/or fibrous tissue formation. Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball (conjunctivitis). Prolonged or repeated skin contact may cause drying, cracking, redness, itching, and/or swelling (dermatitis).

**SENSITIZATION:** Based on best current information, there is no known human sensitization associated with this product.

**MUTAGENICITY:** No information available for this product.

**CARCINOGENICITY:** Based on best current information, there is no known carcinogenicity as regulated by OSHA; as categorized by ACGOH A1 or A2 substances; as categorized by IARC Group 1 Group 2A or Group 2B agents as either known carcinogens or substances for which there is limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals.

**REPRODUCTIVE TOXICITY:** Based on best current information, there is no known reproductive toxicity associated with this product.

**TERATOGENICITY:** Based on best current information, there is no known teratogenicity associated with this product.

**NEUROTOXICITY:** High vapor/aerosol concentrations (attainable only at elevated temperatures) may cause central nervous system effects such as dizziness, drowsiness or headaches.

### TOXICITY DATA:

#### Component Analysis – LD50/LC50

##### Mineral Oil

Dermal LD50 Rabbit >5000 mg/kg

Oral LD50 Rat >5000 mg/kg

##### 2,6-Di-tert-butyl-p-cresol (128-37-0)

Oral DL50 Rat: 890 mg/kg

##### Zinc dialkyl dithiophosphate (68649-42-3)

Dermal LD50 Rat >2000 mg/kg

Oral LD50 Rat >2000 mg/kg

## 12. ECOLOGICAL INFORMATION

**ECOTOXICITY:** Material expected to be harmful to aquatic organisms. May cause long term adverse effects in the aquatic environment.

### COMPONENT ANALYSIS – EXOTOXICITY – AQUATIC TOXICITY

#### 2,6-Di-tert-butyl-p-cresol (128-37-0)

**TEST & SPECIES**

48 Hr. LC50 Cryzias latipes 2.5 mg/L  
 72 Hr EC50 Selenastrum capricomutum 6mg/L

**PERSISTENCE/DEGRADABILITY:** Not readily biodegradable.

**BIOACCUMULATIVE POTENTIAL:** No information available for the product.

**MOBILITY IN ENVIRONMENTAL MEDIA:** Base oil component(s) – Low solubility and floats; expected to migrate from water to the land.

**OTHER ADVERSE EFFECTS:** Not available.

**OCTANOL/WATER PARTITION COEFFICIENT:** Not available

**VOLATILE ORGANIC COMPOUNDS:** Negligible

**AQUATIC RELEASE:** Advise authorities if product has entered or may enter watercourses or sewer drains.

**13. DISPOSAL INFORMATION**

**DISPOSAL:** Dispose in accordance with federal, state, provincial and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste.

**USEPA WASTE CODES:** This product, if discarded, is not expected to be a characteristic or listed hazardous waste. If recycled in the USA, it must be managed in accordance with 40 CFR Part 279. Processing, use or contamination by user may change the waste code(s) applicable to the disposal of these products.

**14. TRANSPORTATION INFORMATION**

**DOT**

**PROPER SHIPPING NAME** Petroleum Lubricating Oil – Not regulated as a hazardous material for Land Transport

**HAZARD CLASS:** Not regulated

**ID NUMBER:** Not regulated

**LABEL REQUIRED:** Not regulated

**EMERGENCY RESPONSE GUIDE NUMBER:** Not applicable. Reference North American Emergency Response Guidebook.

**IATA:** Not regulated

**15. REGULATORY INFORMATION**

**TSCA:** All components of this product are listed in **Section 3** are exempted from the TSCA requirements.

**SARA SECTIONS 302 304:** Based on the ingredients listed in **Section 3**, this product does not contain any “extremely hazardous substances” listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

**SARA SECTIONS 311 AND 312 REPORTING:** This product poses the following health hazard(s) as defined in 40 CFR Part 370 and is subject to the requirements of Sections 311 and 312 of Title III of Superfund Amendments and Reauthorization Act of 1986 (SAEA):

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

**SARA SECTION 313:** This product contains the following chemical(s) subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

**Zinc dialkyl dithiophosphate 0.1 – 0.3**

**CERCLA:** Based on the ingredients listed in **Section 3**, this product does not contain any “hazardous substances” listed pursuant to the comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4.

**The Following Ingredients are cited as follows:**

<b>Chemical Name</b>	<b>CAS Number</b>	<b>State Regulatory List Citations</b>
Zinc dialkyl dithiophosphate	68649-42-3	MI 293, NJ RTK
2,6-Di-tert-butyl-p-cresol	128-37-0	CA, MA, MN, NJ, PA, RI

**16. OTHER INFORMATION**

**DATE ISSUED:** September 28, 2015  
**SUPERSEDES:**  
**REVISION NO.**  
**REVISION INFORMATION:**  
**SDS #:** CODE 712

**LUBRICANTS LLC**  
**6 HORWITH DRIVE**  
**NORTHAMPTON, PA 18067**  
**484-275-7990**

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