

14-JAN-09
OSYRIS 311 S

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To Whom It May Concern:

As you requested, attached is a copy of a Material Safety Data Sheet covering (our ref. no. 200166) OSYRIS 311 S.

Title III of the Superfund Amendments and Reauthorizations Act (SARA) requires chemical suppliers of mixtures and trade name products to provide information to their customers sufficient for them to comply with the requirements of Section 313.

Material Safety Data Sheets (MSDS's) have been updated to include the section 313 information.

Erick Aho
Chemist

MATERIAL SAFETY DATA SHEET FOR OSYRIS 311 S

TOTAL Lubricants USA, Inc.
5 N. Stiles Street
Linden NJ 07036

REVISION DATE
17-FEB-04

DATE ISSUED
14-JAN-09

IDENTIFICATION AND EMERGENCY INFORMATION

| | |
|--|--|
| PRODUCT NAME: OSYRIS 311 S | PRODUCT #: 200166 |
| CHEMICAL NAME: N/A - Mixture | CAS #'S: Mixture |
| PRODUCT APPEARANCE AND ODOR: Amber liquid, solvent odor | CHEMICAL FAMILY: Petroleum solvent |
| SYNONYMS: Rust Preventive | EMERGENCY TELEPHONE: 1-908-862-9300 |

COMPONENTS AND HAZARD INFORMATION

| COMPONENTS: | W/W | HAZARD DATA (TLV, LD50, LC50, ETC.): |
|---|-----|---|
| Synthetic isoparaffinic hydrocarbons CAS # 64742-48-9 | | TWA8 300 ppm |
| Petroleum-based Lubricating Oil CAS # 64742-52-5 | | TLV 5mg/meter cubed (as an oil mist) |
| Oxygenated Hydrocarbon Rust Preventive Additive CAS # 515-72-0 8002-29-7 | | TLV 5mg/meter cubed (mist) |

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS):

| | | |
|--------|--------------|------------|
| Health | Flammability | Reactivity |
| 2 | 2 | 0 |

TRANSPORTATION INFORMATION

TRANSPORTATION INFORMATION:

DOT PROPER SHIPPING NAME:
Combustible Liquid, N.O.S. (Petroleum distillate), NA 1993, PG III

DOT HAZARD CLASS: Combustible Liquid

DOT IDENTIFICATION NUMBER: NA 1993

NAME: COMBUSTIBLE LIQUID, N.O.S.

EMERGENCY FIRST AID

EYE CONTACT:
If splashed into the eyes, flush with clear water for 15 minutes or until irritation subsides. If irritation persists, call a physician.

SKIN CONTACT:
In case of skin contact, remove contaminated clothing and wash skin

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EMERGENCY FIRST AID

thoroughly with soap and water.

INHALATION:

If overcome by vapor, remove from exposure and call a physician immediately.
If breathing is irregular or has stopped, start resuscitation, administer oxygen, if available.

INGESTION:

If ingested, DO NOT induce vomiting; call a physician immediately.
Possible aspiration hazard.

FIRE AND EXPLOSION HAZARD INFORMATION

FLASH POINT (MINIMUM):

COMBUSTIBLE - Per DOT 49 CFR 173.115
120°F

ASTM D 56, Tag Closed Cup

AUTOIGNITION TEMPERATURE:

Approximately 349°C (660°F)
ASTM D 2155

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) - HAZARD IDENTIFICATION:

| | | |
|--------|--------------|------------|
| Health | Flammability | Reactivity |
| 1 | 2 | 0 |

HANDLING PRECAUTIONS:

Keep product away from heat, sparks, pilot lights, static electricity, and open flame.

FLAMMABLE OR EXPLOSIVE LIMITS (FOR SOLVENT COMPONENT, APPROXIMATE):

Estimated values: Lower Flammable Limit 0.7% Upper Flammable Limit 7%

GENERAL HAZARD:

Combustible Liquid, can form combustible mixtures at temperatures at or above the flashpoint.

Static Discharge, material can accumulate static charges which can cause an incendiary electrical discharge.

EXTINGUISHING MEDIA AND FIRE FIGHTING PROCEDURES:

Use water spray to cool fire exposed surfaces and to protect personnel.
Isolate "fuel" supply from fire.

Use foam, dry chemical, or water spray to extinguish fire. Avoid spraying water directly into storage containers due to danger of boilover. This liquid is volatile and gives off invisible vapors. Either the liquid or vapor may settle in low areas or travel some distance along the ground or surface to ignition sources where they may ignite or explode.

DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS:

None unusual, see REACTIVITY section.

"EMPTY" CONTAINER WARNING:

"Empty" containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to clean since residue is difficult to remove. "Empty" drums should be completely drained, properly bunged and

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FIRE AND EXPLOSION HAZARD INFORMATION

promptly returned to a drum reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

HEALTH AND HAZARD INFORMATION

VARIABILITY AMONG INDIVIDUALS:

Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapors, mists or fumes should be minimized.

POTENTIAL HEALTH EFFECTS (For solvent component):

EYE CONTACT: Slightly irritating but does not injure eye tissue.

SKIN CONTACT: Low order of toxicity. Frequent or prolonged contact may irritate and cause dermatitis. Skin contact may aggravate an existing dermatitis condition.

INHALATION: High vapor/aerosol concentrations (greater than approximately 1000 ppm) are irritating to the eyes and respiratory tract, may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness, and other central nervous system effects, including death.

INGESTION: Small amounts of this product aspirated into the pulmonary system during ingestion or vomiting may cause mild to severe pulmonary injury, possibly progressing to death. Minimal toxicity.

PHYSICAL DATA

The following data are approximate or typical values and should not be used for precise design purposes.

BOILING RANGE (Solvent)
Approximately 169-193°C (335-380°F)

VAPOR PRESSURE:
Less than 10 mm Hg @ 25°C
ASTM D 2879

SPECIFIC GRAVITY (15.6°C/15.6°C):
0.76

VAPOR DENSITY (AIR = 1):
Greater than 5

MOLECULAR WEIGHT:
N/E

PERCENT VOLATILE BY VOLUME:
86 @ 1 ATM. AND 25°C (77°F)

pH:
Essentially neutral

EVAPORATION RATE @ 1 ATM. AND 25°C
(77°F):
(N-BUTYL ACETATE = 1)
0.1

POUR, CONGEALING OR MELTING POINT:
N/E

SOLUBILITY IN WATER @ 1 ATM. AND
25°C (77°F):
Negligible; less than 0.1%

VISCOSITY:

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PHYSICAL DATA

1.29 cP @ 25°C ASTM D 445

REACTIVITY

This product is stable and will NOT react violently with water. Hazardous polymerization will not occur. Avoid contact with strong oxidants such as liquid chlorine, concentrated oxygen, sodium hypochlorite or calcium hypochlorite.

DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS

Fumes, smoke, carbon monoxide, and other decomposition products, in the case of incomplete combustion.

CONDITIONS TO AVOID

Keep product away from ignition sources, such as heat, sparks, pilot lights, static electricity, and open flames.

TOXICITY

| | |
|---------------------------|-----|
| ORAL (Acute) | N/E |
| DERMAL (Acute) | N/E |
| EYE | N/E |
| INHALATION (Acute) | N/E |
| CHRONIC, SUBCHRONIC, ETC. | N/E |

Medical Conditions Aggravated by Exposure: Unknown

This product does NOT contain any ingredients identified as carcinogenic by IARC, NTP, or OSHA.

All components known to be contained in this product are on the TSCA inventory or are exempt.

SARA Section 313 Status: This material is not known to contain any chemicals on the SARA Section 313 list at a concentration greater than 1.0 percent or carcinogenic chemical on that list at a concentration greater than 0.1 percent.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Shut off and eliminate all ignition sources. Keep people away. Recover free product. Add sand, earth or other suitable absorbent to spill area. Minimize breathing vapors. Minimize skin contact. Ventilate confined spaces. Open all windows and doors. Keep product out of sewers and watercourses by diking or impounding. Advise authorities if product has entered or may enter sewers, watercourses or extensive land areas. Assure conformity with local regulations. Continue to observe precautions for volatile, combustible vapors from absorbed

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SPILL OR LEAK PROCEDURES

material.

WASTE DISPOSAL METHOD: (Consult federal, state, or local authorities for proper disposal procedures.)

Assure conformity with applicable disposal regulations. Dispose of absorbed material at an approved waste site or facility.

PROTECTION AND PRECAUTIONS

VENTILATION:

Use only with ventilation sufficient to prevent exceeding recommended exposure limit or buildup of explosive concentrations of vapors in air. No smoking, flame or other ignition sources.

RESPIRATORY PROTECTION: (Use only NIOSH/MSHA approved equipment.)

Use supplied air respiratory protection in confined or enclosed spaces, if needed.

PROTECTIVE GLOVES:

Use chemical-resistant gloves, if needed, to avoid prolonged or repeated skin contact.

EYE PROTECTION:

Use splash goggles or face shield when eye contact may occur.

OTHER PROTECTIVE EQUIPMENT:

Use chemical-resistant apron or other impervious clothing, if needed, to avoid contaminating regular clothing which could result in prolonged or repeated skin contact.

WORK PRACTICES/ENGINEERING CONTROLS:

Keep containers closed when not in use. Do not handle near heat, sparks, flame or strong oxidants. To prevent fire or explosion risk from static accumulation and discharge, effectively ground product transfer system in accordance with the National Fire Protection Association standard for petroleum products.

PERSONAL HYGIENE:

Minimize breathing vapor, mist, or fumes. Avoid prolonged or repeated contact with skin. Remove contaminated clothing; launder or dry-clean before reuse. Remove contaminated shoes and thoroughly clean before reuse; discard if oil-soaked. Cleanse skin thoroughly after contact, before breaks and meals, and at end of work period. Product is readily removed from skin by waterless hand cleaners followed by washing thoroughly with soap and water.

PREPARED BY: Erick Aho

CHEMIST

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