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## MATERIAL SAFETY DATA SHEET

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

#### PRODUCT

Product Name: MOBILUX EP 111  
 Product Description: Hydrocarbons and Additives  
 Product Code: 2015A0208090, 641316-00, 970417  
 Intended Use: Grease

#### COMPANY IDENTIFICATION

Supplier: EXXON MOBIL CORPORATION  
 3225 GALLOWS RD.  
 FAIRFAX, VA. 22037 USA

24 Hour Health Emergency 609-737-4411  
 Transportation Emergency Phone 800-424-9300  
 ExxonMobil Transportation No. 281-834-3296  
 MSDS Requests 713-613-3681  
 Product Technical Information 800-662-4525, 800-947-9147  
 MSDS Internet Address <http://www.exxon.com>, <http://www.mobil.com>

### SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

#### Reportable Hazardous Substance(s) or Complex Substance(s)

Name	CAS#	Concentration*
ASPHALT (PETROLEUM)	8052-42-4	40 - 50%
MOLYBDENUM DI(2-ETHYLHEXYL) PHOSPHORODITHIOATE	68958-92-9	1 - 5%

\* All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

### SECTION 3: HAZARDS IDENTIFICATION

This material is not considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

#### POTENTIAL HEALTH EFFECTS

Low order of toxicity. Excessive exposure may result in eye, skin, or respiratory irritation.  
 High-pressure injection under skin may cause serious damage.

#### ENVIRONMENTAL HAZARDS

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

NFPA Hazard ID: Health: 0 Flammability: 1 Reactivity: 0

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HMIS Hazard ID: Health: 0 Flammability: 1 Reactivity: 0

**NOTE:** This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

## SECTION 4 - FIRST AID MEASURES

### INHALATION

Under normal conditions of intended use, this material is not expected to be an inhalation hazard.

### SKIN CONTACT

Wash contact areas with soap and water. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

### EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

### INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

## SECTION 5 - FIRE FIGHTING MEASURES

### EXTINGUISHING MEDIA

**Appropriate Extinguishing Media:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

**Inappropriate Extinguishing Media:** Straight Streams of Water

### FIRE FIGHTING

**Fire Fighting Instructions:** Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

**Hazardous Combustion Products:** Smoke, Fume, Incomplete combustion products, Oxides of carbon, Sulfur oxides, Aldehydes

### FLAMMABILITY PROPERTIES

**Flash Point [Method]:** >204C (400F) [EST. FOR OIL, ASTM D-92 (COC)]  
**Flammable Limits (Approximate volume % in air):** LEL: N/D UEL: N/D  
**Autoignition Temperature:** N/D



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**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**NOTIFICATION PROCEDURES**

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. U.S. regulations require reporting releases of this material to the environment which exceed the reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8602.

**SPILL MANAGEMENT**

**Land Spill:** Scrape up spilled material with shovels into a suitable container for recycle or disposal.

**Water Spill:** Stop leak if you can do it without risk. Confine the spill immediately with booms. Skim from surface.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

**ENVIRONMENTAL PRECAUTIONS**

Prevent entry into waterways, sewers, basements or confined areas.

**SECTION 7 HANDLING AND STORAGE**

**HANDLING**

Prevent small spills and leakage to avoid slip hazard.

**Static Accumulator:** This material is not a static accumulator.

**STORAGE**

Do not store in open or unlabelled containers.

**SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

**EXPOSURE LIMIT VALUES**

Exposure limits/standards (Note: Exposure limits are not additive)

Source	Form	Limit / Standard		Note	Source
ASPHALT (PETROLEUM) [benzene solubles]	Inhalable fraction.	TWA	0.5 mg/m3	N/A	ACGIH
MOLYBDENUM DI(2-ETHYLHEXYL) PHOSPHORODITHIOATE [as Mo]		TWA	5 mg/m3	N/A	OSHA Z1
MOLYBDENUM DI(2-ETHYLHEXYL) PHOSPHORODITHIOATE [as Mo]	Total dust.	TWA	15 mg/m3	N/A	OSHA Z1
MOLYBDENUM DI(2-ETHYLHEXYL)	Inhalable	TWA	10 mg/m3	N/A	ACGIH

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PHOSPHORODITHIOATE [as Mo]	fraction.					
MOLYBDENUM DI(2-ETHYLHEXYL)	Respirable fraction.	TWA	3 mg/m3		N/A	ACGIH
PHOSPHORODITHIOATE [as Mo]						

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

## ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

## PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

**Respiratory Protection:** If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No protection is ordinarily required under normal conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

**Hand Protection:** Any specific glove information provided is based on published literature and glove manufacturer data. Work conditions can greatly effect glove durability; inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

No protection is ordinarily required under normal conditions of use.

**Eye Protection:** If contact is likely, safety glasses with side shields are recommended.

**Skin and Body Protection:** Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.

**Specific Hygiene Measures:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

## ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13.

SECTION 6: PHYSICAL AND CHEMICAL PROPERTIES



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Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

#### GENERAL INFORMATION

Physical State: Solid  
 Form: Semi-fluid  
 Color: Black  
 Odor: Characteristic  
 Odor Threshold: N/D

#### IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15 C): 0.946  
 Flash Point [Method]: >204C (400F) [ EST. FOR OIL, ASTM D-92 (COC)]  
 Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D  
 Autoignition Temperature: N/D  
 Boiling Point / Range: > 316C (600F)  
 Vapor Density (Air = 1): N/D  
 Vapor Pressure: < 0.013 kPa (0.1 mm Hg) at 20 C  
 Evaporation Rate (n-butyl acetate = 1): N/D  
 pH: N/A  
 Log Pow (n-Octanol/Water Partition Coefficient): > 3.5  
 Solubility in Water: Negligible  
 Viscosity: 1000 cSt (1000 mm<sup>2</sup>/sec) at 40 C | 43.61 cSt (43.61 mm<sup>2</sup>/sec) at 100C  
 Oxidizing Properties: See Sections 3, 15, 16.

#### OTHER INFORMATION

Freezing Point: N/D  
 Melting Point: N/D  
 DMSO Extract (mineral oil only), IP-346: < 3 %wt

NOTE: Most physical properties above are for the oil component in the material.

#### SECTION 10 STABILITY AND REACTIVITY

**STABILITY:** Material is stable under normal conditions.

**CONDITIONS TO AVOID:** Excessive heat. High energy sources of ignition.

**MATERIALS TO AVOID:** Strong oxidizers

**HAZARDOUS DECOMPOSITION PRODUCTS:** Material does not decompose at ambient temperatures.

**HAZARDOUS POLYMERIZATION:** Will not occur.

#### SECTION 11 TOXICOLOGICAL INFORMATION

##### ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks
Inhalation	



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Toxicity (Rat): LC50 > 5000 mg/m3	Minimally Toxic. Based on assessment of the components.
Irritation: No end point data.	Negligible hazard at ambient/normal handling temperatures. Based on assessment of the components.
<b>Ingestion</b>	
Toxicity (Rat): LD50 > 2000 mg/kg	Minimally Toxic. Based on test data for structurally similar materials.
<b>Skin</b>	
Toxicity (Rabbit): LD50 > 2000 mg/kg	Minimally Toxic. Based on test data for structurally similar materials.
Irritation (Rabbit): Data available.	Negligible irritation to skin at ambient temperatures. Based on assessment of the components.
<b>Eye</b>	
Irritation (Rabbit): Data available.	May cause mild, short-lasting discomfort to eyes. Based on assessment of the components.

#### CHRONIC/OTHER EFFECTS

##### Contains:

Base oil severely refined: Not carcinogenic in animal studies. Representative material passes IP-346, Modified Ames test, and/or other screening tests. Dermal and inhalation studies showed minimal effects; lung non-specific infiltration of immune cells, oil deposition and minimal granuloma formation. Not sensitizing in test animals.

Additional information is available by request.

The following ingredients are cited on the lists below: None.

1 = NTP CARC  
 2 = NTP SUS

—REGULATORY LISTS SEARCHED—  
 3 = IARC 1  
 4 = IARC 2A

5 = IARC 2B  
 6 = OSHA CARC

#### SECTION 12. ECOTOXICITY AND ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

##### ECOTOXICITY

Material -- Expected to be harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

##### MOBILITY

Base oil component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

##### PERSISTENCE AND DEGRADABILITY

Biodegradation:



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Base oil component – Expected to be inherently biodegradable

#### BIOACCUMULATION POTENTIAL

Base oil component – Has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

#### OTHER ECOLOGICAL INFORMATION

VOC (EPA Method 24): 0.079 lbs/gal

#### SECTION 13 DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

#### DISPOSAL RECOMMENDATIONS

Suitable routes of disposal are supervised incineration, preferentially with energy recovery, or appropriate recycling methods in accordance with applicable regulations and material characteristics at the time of disposal.

#### REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

**Empty Container Warning** PRECAUTIONARY LABEL TEXT: Empty containers may retain residue and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to refill or clean container since residue is difficult to remove. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

#### SECTION 14 TRANSPORT INFORMATION

LAND (DOT) : Not Regulated for Land Transport

LAND (TDG) : Not Regulated for Land Transport

SEA (IMDG) : Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA) : Not Regulated for Air Transport

#### SECTION 15 REGULATORY INFORMATION



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**OSHA HAZARD COMMUNICATION STANDARD:** When used for its intended purposes, this material is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

**NATIONAL CHEMICAL INVENTORY LISTING:** AICS, IECSC, DSL, EINECS, TSCA

**EPCRA:** This material contains no extremely hazardous substances.

**SARA (311/312) REPORTABLE HAZARD CATEGORIES:** None.

**SARA (313) TOXIC RELEASE INVENTORY:** This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The Following Ingredients are Cited on the Lists Below:\*

Chemical Name	CAS Number	List Citations
ASPHALT (PETROLEUM)	8052-42-4	1, 13, 16, 17, 18, 19
CHLORINE	7782-50-5	1, 4
MOLYBDENUM DI(2-ETHYLHEXYL) PHOSPHORODITHIOATE	68958-92-9	1, 4, 13, 16, 19
PHOSPHORUS	7723-14-0	1, 4

—REGULATORY LISTS SEARCHED—

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

\* EPA recently added new chemical substances to its TSCA Section 4 test rules. Please contact the supplier to confirm whether the ingredients in this product currently appear on a TSCA 4 or TSCA 12b list.

**SECTION 9: OTHER INFORMATION**

N/D = Not determined, N/A = Not applicable

**THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:**  
 No revision information is available.

This warning is given to comply with California Health and Safety Code 25249.6 and does not constitute an admission or a waiver of rights. This product contains a chemical known to the State of California to cause cancer.



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