

Product Name: ESTEREX™ TM111  
Revision Date: 30 Mar 2018  
Page 1 of 10

## SAFETY DATA SHEET

### SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

#### PRODUCT

**Product Name:** ESTEREX™ TM111  
**Product Description:** Synthetic Ester  
  
**Intended Use:** Base oil

#### COMPANY IDENTIFICATION

**Supplier:** EXXONMOBIL CHEMICAL COMPANY  
SDS – LOC. 106  
22777 Springwoods Village Parkway  
Spring, TX 77389-1425 USA

**24 Hour Health Emergency** (800) 726-2015  
**Transportation Emergency Phone** (800) 424-9300 or (703) 527-3887 CHEMTREC  
**Product Technical Information** (832) 624-8500  
**Supplier General Contact** (832) 624-8500

### SECTION 2 HAZARDS IDENTIFICATION

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

#### Other hazard information:

**HAZARD NOT OTHERWISE CLASSIFIED (HNOC):** None as defined under 29 CFR 1910.1200.

#### PHYSICAL / CHEMICAL HAZARDS

No significant hazards.

#### HEALTH HAZARDS

High-pressure injection under skin may cause serious damage.

#### ENVIRONMENTAL HAZARDS

No significant hazards.

|                        |           |                 |               |
|------------------------|-----------|-----------------|---------------|
| <b>NFPA Hazard ID:</b> | Health: 0 | Flammability: 1 | Reactivity: 0 |
| <b>HMIS Hazard ID:</b> | 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.

---

|                  |   |
|------------------|---|
| <b>SECTION 3</b> | <b>COMPOSITION / INFORMATION ON INGREDIENTS</b> |
|------------------|---|

This material is defined as a substance.

**No Hazardous Substance(s) or Complex Substance(s) required for disclosure.**

|                  |                           |
|------------------|---------------------------|
| <b>SECTION 4</b> | <b>FIRST AID MEASURES</b> |
|------------------|---------------------------|

**INHALATION**

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

**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.

|                  |                               |
|------------------|-------------------------------|
| <b>SECTION 5</b> | <b>FIRE FIGHTING MEASURES</b> |
|------------------|-------------------------------|

**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:** Incomplete combustion products, Oxides of carbon, Smoke, Fume

**FLAMMABILITY PROPERTIES**

**Flash Point [Method]:** 241°C (465°F) [ASTM D-93]

**Flammable Limits (Approximate volume % in air):** LEL: N/D UEL: N/D

**Autoignition Temperature:** N/D

---

|                  |                                    |
|------------------|------------------------------------|
| <b>SECTION 6</b> | <b>ACCIDENTAL RELEASE MEASURES</b> |
|------------------|------------------------------------|

### NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

### PROTECTIVE MEASURES

Avoid contact with spilled material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

### SPILL MANAGEMENT

**Land Spill:** Stop leak if you can do it without risk. Recover by pumping or with suitable absorbent.

**Water Spill:** Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

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

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

---

|                  |                             |
|------------------|-----------------------------|
| <b>SECTION 7</b> | <b>HANDLING AND STORAGE</b> |
|------------------|-----------------------------|

### HANDLING

Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). When the material is handled in bulk, an electrical spark could ignite any flammable vapors from liquids or residues that may be present (e.g., during switch-loading operations). Use proper bonding and/or ground procedures. However, bonding and grounds may not eliminate the hazard from static accumulation. Consult local applicable standards for guidance. Additional references include American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practice on Static Electricity) or CENELEC CLC/TR 50404 (Electrostatics - Code of practice for the avoidance of hazards due to static electricity).

**Static Accumulator:** This material is a static accumulator.

### STORAGE

The type of container used to store the material may affect static accumulation and dissipation. Do not store in open or unlabelled containers.

---

|                  |  |
|------------------|--|
| <b>SECTION 8</b> | <b>EXPOSURE CONTROLS / PERSONAL PROTECTION</b> |
|------------------|--|

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

No biological limits allocated.

### 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. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. 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

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Note:** Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

### GENERAL INFORMATION

**Physical State:** Liquid  
**Color:** Colorless  
**Odor:** Mild  
**Odor Threshold:** N/D

### IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

**Relative Density (at 15 °C):** 0.98 [In-house method]  
**Flammability (Solid, Gas):** N/D  
**Flash Point [Method]:** 241°C (465°F) [ASTM D-93]  
**Flammable Limits (Approximate volume % in air):** LEL: N/D UEL: N/D  
**Autoignition Temperature:** N/D  
**Boiling Point / Range:** 311°C (592°F) [In-house method]  
**Decomposition Temperature:** N/D  
**Vapor Density (Air = 1):** N/D  
**Vapor Pressure:** < 0.013 kPa (0.1 mm Hg) at 20 °C [In-house method]  
**Evaporation Rate (n-butyl acetate = 1):** N/D  
**pH:** N/D  
**Log Pow (n-Octanol/Water Partition Coefficient):** 13.06 [In-house method]  
**Solubility in Water:** Negligible  
**Viscosity:** 129 cSt (129 mm<sup>2</sup>/sec) at 40 °C | 11.9 cSt (11.9 mm<sup>2</sup>/sec) at 100°C [In-house method]  
**Oxidizing Properties:** See Hazards Identification Section.

### OTHER INFORMATION

**Freezing Point:** N/D  
**Melting Point:** N/D

## SECTION 10 STABILITY AND REACTIVITY

**REACTIVITY:** See sub-sections below.

**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.

Product Name: ESTEREX™ TM111

Revision Date: 30 Mar 2018

Page 6 of 10

**POSSIBILITY OF HAZARDOUS REACTIONS:** Hazardous polymerization will not occur.

|                   |                                  |
|-------------------|----------------------------------|
| <b>SECTION 11</b> | <b>TOXICOLOGICAL INFORMATION</b> |
|-------------------|----------------------------------|

**INFORMATION ON TOXICOLOGICAL EFFECTS**

| <b>Hazard Class</b>  | <b>Conclusion / Remarks</b>  |
|--|--|
| <b>Inhalation</b>  |  |
| Acute Toxicity: (Rat) 6 hour(s) LC50 > 0.23 mg/l (Aerosol) | Minimally Toxic. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 403  |
| Irritation: No end point data for material.                | Negligible hazard at ambient/normal handling temperatures.   |
| <b>Ingestion</b>   |  |
| Acute Toxicity (Rat): LD50 > 2000 mg/kg                    | Minimally Toxic. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 401  |
| <b>Skin</b>  |  |
| Acute Toxicity (Rabbit): LD50 > 2000 mg/kg                 | Minimally Toxic. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 402  |
| Skin Corrosion/Irritation (Rabbit): Data available.        | Negligible irritation to skin at ambient temperatures. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 404                  |
| <b>Eye</b>   |  |
| Serious Eye Damage/Irritation (Rabbit): Data available.    | May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 405                       |
| <b>Sensitization</b>                                       |  |
| Respiratory Sensitization: No end point data for material. | Not expected to be a respiratory sensitizer.   |
| Skin Sensitization: Data available.                        | Not expected to be a skin sensitizer. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 406                                   |
| <b>Aspiration:</b> Data available.                         | Not expected to be an aspiration hazard. Based on physico-chemical properties of the material.   |
| <b>Germ Cell Mutagenicity:</b> Data available.             | Not expected to be a germ cell mutagen. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 471 473 476                         |
| <b>Carcinogenicity:</b> No end point data for material.    | Not expected to cause cancer.  |
| <b>Reproductive Toxicity:</b> Data available.              | Not expected to be a reproductive toxicant. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 414 421                         |
| <b>Lactation:</b> No end point data for material.          | Not expected to cause harm to breast-fed children.   |
| <b>Specific Target Organ Toxicity (STOT)</b>               |  |
| Single Exposure: No end point data for material.           | Not expected to cause organ damage from a single exposure.   |
| Repeated Exposure: Data available.                         | Not expected to cause organ damage from prolonged or repeated exposure. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 408 |

**OTHER INFORMATION**

**For the product itself:** Synthetic base oils: Not expected to cause significant health effects under conditions of normal use, based on laboratory studies with the same or similar materials. Not mutagenic or genotoxic. Not sensitizing in test animals and humans.

Product Name: ESTEREX™ TM111

Revision Date: 30 Mar 2018

Page 7 of 10

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

--REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

|                   |                               |
|-------------------|-------------------------------|
| <b>SECTION 12</b> | <b>ECOLOGICAL INFORMATION</b> |
|-------------------|-------------------------------|

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

**ECOTOXICITY**

Material -- Not expected to be harmful to aquatic organisms.

Material -- Not expected to demonstrate chronic toxicity to aquatic organisms.

**PERSISTENCE AND DEGRADABILITY**

**Biodegradation:**

Material -- Expected to biodegrade slowly.

**ECOLOGICAL DATA**

**Ecotoxicity**

| Test                       | Duration   | Organism Type                   | Test Results                               |
|----------------------------|------------|---------------------------------|--|
| Aquatic - Acute Toxicity   | 48 hour(s) | Daphnia magna                   | LL0 180 mg/l: data for similar materials   |
| Aquatic - Acute Toxicity   | 96 hour(s) | Oryzia latipes                  | LL0 100 mg/l: data for similar materials   |
| Aquatic - Acute Toxicity   | 72 hour(s) | Pseudokirchneriella subcapitata | LL0 100 mg/l: data for similar materials   |
| Aquatic - Chronic Toxicity | 21 day(s)  | Daphnia magna                   | NOELR 0.1 mg/l: data for similar materials |

**Persistence, Degradability and Bioaccumulation Potential**

| Media         | Test Type              | Duration  | Test Results       |
|---------------|------------------------|-----------|--------------------|
| Octanol-Water | Calculated             |           | log Kow 13.06      |
| Water         | Ready Biodegradability | 28 day(s) | Percent Degraded 4 |

|                   |                                |
|-------------------|--------------------------------|
| <b>SECTION 13</b> | <b>DISPOSAL CONSIDERATIONS</b> |
|-------------------|--------------------------------|

Product Name: ESTEREX™ TM111

Revision Date: 30 Mar 2018

Page 8 of 10

---

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

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

#### 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** Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. **DO NOT PRESSURISE, 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.**

|                   |
|-------------------|
| <b>SECTION 14</b> |
|-------------------|

|                              |
|------------------------------|
| <b>TRANSPORT INFORMATION</b> |
|------------------------------|

**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

**Marine Pollutant:** No

**AIR (IATA):** Not Regulated for Air Transport

|                   |
|-------------------|
| <b>SECTION 15</b> |
|-------------------|

|                               |
|-------------------------------|
| <b>REGULATORY INFORMATION</b> |
|-------------------------------|

**OSHA HAZARD COMMUNICATION STANDARD:** This material is not considered hazardous in accordance with OSHA HazCom 2012, 29 CFR 1910.1200.

**Listed or exempt from listing/notification on the following chemical inventories:** DSL, ENCS, IECSC, PICCS, TSCA

**SARA 302:** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302



Product Name: ESTEREX™ TM111  
Revision Date: 30 Mar 2018  
Page 9 of 10

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

--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

**SECTION 16**

**OTHER INFORMATION**

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

**THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:**

Section 01: Company Mailing Address information was deleted.  
Section 01: Company Mailing Address information was modified.  
Section 01: Product Identification Product Name information was modified.  
Section 07: Handling and Storage - Handling information was modified.  
Section 07: Handling and Storage - Storage Phrases information was modified.  
Section 12: Environmental fate table in section 12 information was modified.  
Section 12: Environmental tox table in section 12 information was modified.  
Section 15: SARA (311/312) REPORTABLE GHS HAZARD CLASSES information was added.  
Section 15: SARA (311/312) REPORTABLE HAZARD CATEGORIES information was deleted.

-----  
The information and recommendations contained herein are, to the best of ExxonMobil's knowledge and belief, accurate and reliable as of the date issued. You can contact ExxonMobil to insure that this document is the most current available from ExxonMobil. The information and recommendations are offered for the user's consideration and examination. It is the user's responsibility to satisfy itself that the product is suitable for the intended use. If buyer repackages this product, it is the user's responsibility to insure proper health, safety and other necessary information is included with and/or on the container. Appropriate warnings and safe-handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, re-publication or retransmission of this document, in whole or in part, is not permitted. The term, "ExxonMobil" is used for convenience, and may include any one or more of ExxonMobil Chemical Company, Exxon Mobil Corporation, or any affiliates in which they directly or indirectly hold any interest.  
-----



Product Name: ESTEREX™ TM111  
Revision Date: 30 Mar 2018  
Page 10 of 10

---

Internal Use Only

MHC: 0, 0, 0, 0, 0, 0

PPEC: A

DGN: 2021773CUS (554370)

---

Copyright 2002 Exxon Mobil Corporation, All rights reserved