



# Guardol ECT Motor Oil

## Material Safety Data Sheet

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Guardol ECT Motor Oil

**MSDS Code:** 778844

**Synonyms:** Guardol ECT Motor Oil, 10W-30  
Guardol ECT Motor Oil, 15W-40

**Intended Use:** Crankcase Oil

**Chemical Family:** Hydrocarbon

**Responsible Party:** ConocoPhillips Lubricants  
600 N. Dairy Ashford  
Houston, Texas 77079-1175

**Customer Service:** 888-766-7676

**Technical Information:** 800-255-9556

**MSDS Information:** Internet: <http://w3.conocophillips.com/NetMSDS/>

**Emergency Telephone Numbers:** Chemtrec: 800-424-9300 (24 Hours)  
California Poison Control System: 800-356-3219

### 2. HAZARDS IDENTIFICATION

#### Emergency Overview

Not expected to be hazardous under intended conditions of use.

#### NFPA



**Appearance:** Light brown  
**Physical Form:** Liquid  
**Odor:** Characteristic petroleum

#### OSHA Regulatory Status

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

#### Potential Health Effects

**Eye:** Contact may cause mild eye irritation including stinging, watering, and redness.

**Skin:** Contact may cause mild skin irritation including redness, and a burning sensation. Prolonged or repeated contact can worsen irritation by causing drying and cracking of the skin leading to dermatitis (inflammation). No harmful effects from skin absorption are expected.

**Inhalation (Breathing):** No information available. Studies by other exposure routes suggest a low degree of toxicity by inhalation.

**Ingestion (Swallowing):** No harmful effects expected from ingestion.

**Signs and Symptoms:** Effects of overexposure may include irritation of the digestive tract, nausea and diarrhea. Inhalation of oil mist or vapors at elevated temperatures may cause respiratory irritation.

**Pre-Existing Medical Conditions:** Conditions aggravated by exposure may include skin disorders.

See Section 11 for additional Toxicity Information.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### HAZARDOUS COMPONENTS

Component	CAS	Concentration (wt %)
Zinc Compound(s)	PROPRIETARY	<1.5
p-dodecylphenol 27193-86-8		0.1 - 0.15

#### NON-HAZARDOUS COMPONENTS

Component	CAS	Concentration (wt %)
Lubricant Base Oil (Petroleum)	VARIOUS	75 - 80
Additives	PROPRIETARY	22 - 27

### 4. FIRST AID MEASURES

**Eye:** If irritation or redness develops, move victim away from exposure and into fresh air. Flush eyes with clean water. If symptoms persist, seek medical attention.

**Skin:** Wipe material from skin and remove contaminated shoes and clothing. Cleanse affected area(s) thoroughly by washing with mild soap and water and, if necessary, a waterless skin cleanser. If irritation or redness develops and persists, seek medical attention.

**Inhalation (Breathing):** If respiratory symptoms develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

**Ingestion (Swallowing):** First aid is not normally required; however, if swallowed and symptoms develop, seek medical attention.

**Notes to Physician:** Acute aspirations of large amounts of oil-laden material may produce a serious aspiration pneumonia. Patients who aspirate these oils should be followed for the development of long-term sequelae. Inhalation exposure to oil mists below current workplace exposure limits is unlikely to cause pulmonary abnormalities.

### 5. FIRE-FIGHTING MEASURES

#### NFPA 704 Hazard Class

Health: 1    Flammability: 1    Instability: 0    (0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme)

**Unusual Fire & Explosion Hazards:** This material may burn, but will not ignite readily. If container is not properly cooled, it can rupture in the heat of a fire. Vapors are heavier than air and can accumulate in low areas.

**Extinguishing Media:** Dry chemical, carbon dioxide, foam, or water spray is recommended. Water or foam may cause frothing of materials heated above 212°F. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.

**Fire Fighting Instructions:** For fires beyond the incipient stage, emergency responders in the immediate hazard area should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or confined spaces, or when explicitly required by DOT, a self contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8).

Isolate immediate hazard area, keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Move undamaged containers from immediate hazard area if it can be done with minimal risk.

Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Cool equipment exposed to fire with water, if it can be done with minimal risk. Avoid spreading burning liquid with water used for cooling purposes.

**See Section 9 for Flammable Properties including Flash Point and Flammable (Explosive) Limits**

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:** This material may burn, but will not ignite readily. Keep all sources of ignition away from spill/release.

**Spill precautions:** Stay upwind and away from spill/release. Notify persons down wind of the spill/release, isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Wear appropriate protective equipment, including respiratory protection, as conditions warrant (see Section 8).

**Environmental precautions:** Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems, and natural waterways. Dike far ahead of spill for later recovery or disposal. Spilled material may be absorbed into an appropriate absorbent material.

**Methods for cleaning up:** Immediate cleanup of any spill is recommended. Notify fire authorities and appropriate federal, state, and local agencies. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, notify the National Response Center (phone number 800-424-8802).

## 7. HANDLING AND STORAGE

**Handling:** Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits (see Sections 2 and 8).

Do not wear contaminated clothing or shoes. Use good personal hygiene practices.

"Empty" containers retain residue and may 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. "Empty" drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

Before working on or in tanks which contain or have contained this material, refer to OSHA regulations, ANSI Z49.1, and other references pertaining to cleaning, repairing, welding, or other contemplated operations.

**Storage:** Keep container(s) tightly closed. Store only in approved containers. Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage. Use and store this material in cool, dry, well-ventilated areas away from heat and all sources of ignition. Storage temperatures above 113°F may lead to thermal decomposition, resulting in the generation of hydrogen sulfide and other sulfur containing gases.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Component	ACGIH	OSHA	Other:
Lubricant Base Oil (Petroleum)	5mg/m <sup>3</sup> TWA 10 mg/m <sup>3</sup> STEL as Oil Mist, if Generated	5 mg/m <sup>3</sup> TWA as Oil Mist, if Generated	

**Note:** State, local or other agencies or advisory groups may have established more stringent limits. Consult an industrial hygienist or similar professional, or your local agencies, for further information.

**Engineering controls:** If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits (see Section 2), additional engineering controls may be required.

### Personal Protective Equipment (PPE):

**Eye/Face:** Approved eye protection to safeguard against potential eye contact, irritation, or injury is recommended. Depending on conditions of use, a face shield may be necessary.

**Skin:** The use of gloves impervious to the specific material handled, such as nitrile, is advised to prevent skin contact and possible irritation (see manufacturers literature for information on permeability).

**Respiratory:** A NIOSH certified air purifying respirator with a Type 95 (R or P) particulate filter may be used under conditions where airborne concentrations are expected to exceed exposure limits (see Section 2).

Protection provided by air purifying respirators is limited (see manufacturer's respirator selection guide). Use a NIOSH approved self-contained breathing apparatus (SCBA) or equivalent operated in a pressure demand or other positive pressure mode if there is potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

**Other Protective Equipment:** A source of clean water should be available in the work area for flushing eyes and skin. Impervious clothing should be worn as needed.

Suggestions for the use of specific protective materials are based on readily available published data. Users should check with specific manufacturers to confirm the performance of their products.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Note:** Unless otherwise stated, values are determined at 20°C (68°F) and 760 mm Hg (1 atm).

<b>Appearance:</b>	Light brown
<b>Physical Form:</b>	Liquid
<b>Odor:</b>	Characteristic petroleum
<b>Odor Threshold:</b>	No data
<b>pH:</b>	Not applicable
<b>Vapor Pressure:</b>	< 1
<b>Vapor Density (air=1):</b>	>1
<b>Boiling Point/Range:</b>	No data
<b>Melting/Freezing Point:</b>	No data
<b>Pour Point:</b>	-33°F / -36°C
<b>Solubility in Water:</b>	Negligible
<b>Partition Coefficient (n-octanol/water) (Kow):</b>	No data
<b>Specific Gravity:</b>	0.87 - 0.89 @ 68°F (20°C)
<b>Bulk Density:</b>	7.31 lbs/gal
<b>Viscosity:</b>	14.7 - 15.7 cSt @ 100°C; 116 typical cSt @ 40°C
<b>Evaporation Rate (nBuAc=1):</b>	<1
<b>Flash Point:</b>	464°F / 240°C
<b>Test Method:</b>	Pensky-Martens Closed Cup (PMCC), ASTM D93, EPA 1010
<b>LEL (vol % in air):</b>	No data
<b>UEL (vol % in air):</b>	No data
<b>Autoignition Temperature:</b>	No data

## 10. STABILITY AND REACTIVITY

**Stability:** Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Conditions to Avoid:** Extended exposure to high temperatures can cause decomposition.

**Materials to Avoid (Incompatible Materials):** Avoid contact with strong oxidizing agents, strong acids and strong bases.

**Hazardous Decomposition Products:** Combustion can yield carbon, nitrogen, sulfur, phosphorus, and zinc oxides. Hydrogen sulfide and alkyl mercaptans may also be released. Thermal decomposition may produce hydrogen sulfide and other sulfur-containing gases at temperatures greater than 113°F.

**Hazardous Polymerization:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION

### Chronic Data:

Lubricant Base Oil (Petroleum)

**Carcinogenicity:** The petroleum base oils contained in this product have been highly refined by a variety of processes including solvent extraction, hydrotreating, and/or dewaxing to remove aromatics and improve performance characteristics. They contain low concentrations of PAH's and none have been identified as a carcinogen by NTP, IARC or OSHA.

**p-dodecylphenol 27193-86-8**

**Reproductive:** This product contains low levels of p-dodecylphenol. Rats given high, repeated daily doses of p-dodecylphenol by oral intubation experienced adverse reproductive effects. Pregnant rats given high, repeated daily doses of p-dodecylphenol by oral intubation gave birth to pups with cleft palate and skeletal malformations at dose levels that caused maternal toxicity. Follow-up studies of p-dodecylphenol in finished lubricating fluids demonstrated a no-observed effect level of 1.78 wt%.

**Acute Data:**

Component	Oral LD50=	Dermal LD50=	Inhalation LC50=
Lubricant Base Oil (Petroleum)	>5 g/kg	>2 g/kg	
p-dodecylphenol 27193-86-8	2100 mg/kg (rat)	>2000 mg/kg (rabbit)	

**12. ECOLOGICAL INFORMATION**

Lubricant oil basestocks are complex mixtures of hydrocarbons (primarily branched chain alkanes and cycloalkanes) ranging in carbon number from C15 to C50. The aromatic hydrocarbon content of these mixtures varies with the severity of the refining process. White oils have negligible levels of aromatic hydrocarbons, whereas significant proportions are found in unrefined basestocks. Olefins are found only at very low concentrations. Volatilization is not significant after release of lubricating oil basestocks to the environment due to the very low vapor pressure of the hydrocarbon constituents. In water, lubricating oil basestocks will float and will spread at a rate that is viscosity dependent. Water solubilities are very low and dispersion occurs mainly from water movement with adsorption by sediment being the major fate process. In soil, lubricating oil basestocks show little mobility and adsorption is the predominant physical process.

Both acute and chronic ecotoxicity studies have been conducted on lubricant base oils. Results indicate that the acute aquatic toxicities to fish, Daphnia, Cenodaphnia and algal species are above 1000 mg/l using either water accommodated fractions or oil in water dispersions. Since lubricant base oils mainly contain hydrocarbons having carbon numbers in the range C15 to C50, it is predicted that acute toxicity would not be observed with these substances due to low water solubility. Results from chronic toxicity tests show that the no observed effect level (NOEL) usually exceeds 1000 mg/l for lubricant base oils with the overall weight of experimental evidence leading to the conclusion that lubricant base oils do not cause chronic toxicity to fish and invertebrates.

Large volumes spills of lubricant base oils into water will produce a layer of undissolved oil on the water surface that will cause direct physical fouling of organisms and may interfere with surface air exchange resulting in lower levels of dissolved oxygen. Petroleum products have also been associated with causing taint in fish even when the latter are caught in lightly contaminated environments. Highly refined base oils sprayed onto the surface of eggs will result in a failure to hatch.

Extensive experience from laboratory and field trials in a wide range of crops has confirmed that little or no damage is produced as a result of either aerosol exposure or direct application of oil emulsion to the leaves of crop plants. Base oils incorporated into soil have resulted in little or no adverse effects on seed germination and plant growth at contamination rates up to 4%.

**13. DISPOSAL CONSIDERATIONS**

The generator of a waste is always responsible for making proper hazardous waste determinations and needs to consider state and local requirements in addition to federal regulations.

This material, if discarded as produced, would not be a federally regulated RCRA "listed" hazardous waste and is not believed to exhibit characteristics of hazardous waste. See Sections 7 and 8 for information on handling, storage and personal protection and Section 9 for physical/chemical properties. It is possible that the material as produced contains constituents which are not required to be listed in the MSDS but could affect the hazardous waste determination. Additionally, use which results in chemical or physical change of this material could subject it to regulation as a hazardous waste.

This material under most intended uses would become "Used Oil" due to contamination by physical or chemical impurities. Whenever possible, Recycle Used Oil in accordance with applicable federal and state or local regulations. Container contents should be completely used and containers should be emptied prior to discard.

**14. TRANSPORTATION INFORMATION**

U.S. Department of Transportation (DOT)

#### 14. TRANSPORTATION INFORMATION

**Shipping Description:** Not regulated  
**Note:** Material is unregulated unless shipped by land in a packaging having a capacity of 3,500 gallons or more. Then the provisions of 49 CFR, Part 130 apply.

#### International Maritime Dangerous Goods (IMDG)

**Shipping Description:** Not regulated  
**Note:** Additional Federal compliance requirements may apply. See 49 CFR 171.12.

#### International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)

**UN/ID #:** Not regulated  
**Note:** Additional Federal compliance requirements may apply. See 49 CFR 171.11.

	LTD. QTY	Passenger Aircraft	Cargo Aircraft Only
<b>Packaging Instruction #:</b>	---	---	---
<b>Max. Net Qty. Per Package:</b>	---	---	---

#### 15. REGULATORY INFORMATION

#### CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPOs (in pounds):

This material does not contain any chemicals subject to the reporting requirements of SARA 302 and 40 CFR 372.

#### CERCLA/SARA - Section 311/312 (Title III Hazard Categories)

**Acute Health:** No  
**Chronic Health:** No  
**Fire Hazard:** No  
**Pressure Hazard:** No  
**Reactive Hazard:** No

#### CERCLA/SARA - Section 313 and 40 CFR 372:

This material contains the following chemicals subject to the reporting requirements of SARA 313 and 40 CFR 372:

Component	Concentration (wt %)	de minimis / PBT
Zinc Compound(s)	<1.5	1.5%

#### EPA (CERCLA) Reportable Quantity (in pounds):

This material does not contain any chemicals subject to the reporting requirements.

#### California Proposition 65:

Warning: This material may contain the following chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm, and are subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5):

Used engine oils, while not a component of this material, is on the Proposition 65 list of chemicals known to the State of California to cause cancer.

Arsenic and Inorganic Arsenic Compounds – Cancer and Developmental Toxicant  
Cadmium and Cadmium Compounds – Developmental and Reproductive Toxicant  
Lead and Lead Compounds – Cancer  
Benzene – Cancer, Developmental and Reproductive Toxicant

#### Carcinogen Identification:

Used motor oil has been identified as a possible skin carcinogen by IARC.

#### Canadian Regulations:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

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**WHMIS Hazard Class:**

Not Regulated

**National Chemical Inventories**

All components are listed on the US TSCA Inventory.

All components are listed on the Canadian DSL.

**U.S. Export Control Classification Number:** EAR99

**16. OTHER INFORMATION**

<b>Issue Date:</b>	04-Oct-2006
<b>Revised Sections or Basis for Revision:</b>	New MSDS
<b>MSDS Code:</b>	778844

**MSDS Legend:**

ACGIH = American Conference of Governmental Industrial Hygienists; CAS = Chemical Abstracts Service Registry; CEILING = Ceiling Limit (15 minutes); CERCLA = The Comprehensive Environmental Response, Compensation, and Liability Act; EPA = Environmental Protection Agency; IARC = International Agency for Research on Cancer; LEL = Lower Explosive Limit; NE = Not Established; NFPA = National Fire Protection Association; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; PEL = Permissible Exposure Limit (OSHA); SARA = Superfund Amendments and Reauthorization Act; STEL = Short Term Exposure Limit (15 minutes); TLV = Threshold Limit Value (ACGIH); TWA = Time Weighted Average (8 hours); UEL = Upper Explosive Limit; WHMIS = Worker Hazardous Materials Information System (Canada)

**Disclaimer of Expressed and Implied Warranties:**

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