

**430306-00 MOBIL JET OIL 254**

- Rec'd by fax Aug 20/03  
- Jan 03 version  
- incl. TCP warnings  
under sec 3, 4, 11, 16

**1. PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT NAME: MOBIL JET OIL 254  
SUPPLIER: EXXONMOBIL CORPORATION  
3225 GALLOWES RD.  
FAIRFAX, VA 22037

24 - Hour Health and Safety Emergency (call collect): 609-737-4411

24 - Hour Transportation Emergency:  
CHEMTREC: 800-424-9300 202-483-7616  
LUBES AND FUELS: 281-834-3296

Product and Technical Information:  
Lubricants and Specialties: 800-662-4525 800-443-9966  
Fuels Products: 800-947-9147  
MSDS Fax on Demand: 613-228-1467  
MSDS Internet Website: <http://emmsds.ihssolutions.com/>

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

CHEMICAL NAMES AND SYNONYMS: SYN. HYDROCARBONS AND ADDITIVES

GLOBALLY REPORTABLE MSDS INGREDIENTS:

Substance Name	Approx. Wt%
TRICRESYL PHOSPHATE (1330-78-5)	1-5

See Section 8 for exposure limits (if applicable).

**3. HAZARDS IDENTIFICATION**

This product is considered hazardous according to regulatory guidelines  
(See Section 15).

EMERGENCY OVERVIEW: Brown Liquid. DOT ERG No. : NA. SEC: 0

POTENTIAL HEALTH EFFECTS: This product is not expected to produce  
neurotoxic effects under normal conditions of use and with  
appropriate personal hygiene practices. This product contains

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tricresyl phosphate (TCP). Overexposure to TCP by swallowing, prolonged or repeated breathing of oil mist, or prolonged or repeated skin contact may produce nervous system disorders including gastrointestinal disturbances, numbness, muscular cramps, weakness and paralysis. Paralysis may be delayed. Refer to emergency and first aid procedures for additional information.

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

For further health effects/toxicological data, see Section 11.

## 4. FIRST AID MEASURES

EYE CONTACT: Flush thoroughly with water. If irritation occurs, call a physician.

SKIN CONTACT: Wash contact areas with soap and water. Do not wear ordinary clothing wet with this product. Remove contaminated clothing. Launder contaminated clothing before reuse.

INHALATION: Remove from further exposure. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with bag-valve-mask device or use mouth-to-mouth resuscitation.

INGESTION: Seek immediate medical attention. If medical attention will be delayed, contact a Regional Poison Center or emergency medical professional regarding the induction of vomiting or use of activated charcoal. Do not induce vomiting or give anything by mouth to a groggy or unconscious person.

NOTE TO PHYSICIANS: This product is not expected to produce adverse effects under normal conditions of use and appropriate personal hygiene. This product contains TCP which can cause symptoms associated with cholinesterase inhibition. TCP may also produce neurotoxicity associated with inhibition of neuropathy target esterase (NTE). Effects of cholinesterase inhibition are expected to occur within hours of exposure, but neurotoxicity related to NTE inhibition may not become evident for several days. Treat appropriately.

## 5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical and water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Water or foam may cause frothing. Use water to keep fire exposed containers cool. Water spray may be used to flush spills away from exposure. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

SPECIAL PROTECTIVE EQUIPMENT: For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None.

COMBUSTION PRODUCTS: Fumes, smoke, carbon monoxide, sulfur oxides, aldehydes and other decomposition products, in the case of incomplete combustion.

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Flash Point C(F): > 246(475) (ASTM D-92).

Flammable Limits (approx.% vol.in air) - LEL: NE, UEL: NE

NFPA HAZARD ID: Health: 1, Flammability: 1, Reactivity: 0

## 6. ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES: Report spills as required to appropriate authorities. U. S. Coast Guard regulations require immediate reporting of spills that could reach any waterway including intermittent dry creeks. Report spill to Coast Guard toll free number (800) 424-8802. In case of accident or road spill notify CHEMTREC (800) 424-9300.

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: Adsorb on fire retardant treated sawdust, diatomaceous earth, etc. Shovel up and dispose of at an appropriate waste disposal facility in accordance with current applicable laws and regulations, and product characteristics at time of disposal.

ENVIRONMENTAL PRECAUTIONS: Prevent spills from entering storm sewers or drains and contact with soil.

PERSONAL PRECAUTIONS: See Section 8

## 7. HANDLING AND STORAGE

HANDLING: Avoid ingestion. Avoid inhalation of mists. Avoid prolonged repeated skin contact. Wash thoroughly before eating or smoking. Keep away from feed or food products. Do not use on food processing machinery.

STORAGE: Store in a cool, dry, well ventilated area away from heat.

SPECIAL PRECAUTIONS: Prevent small spills and leakages to avoid slip hazard.

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, 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.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### OCCUPATIONAL EXPOSURE LIMITS:

When mists/aerosols can occur, the following are recommended: 5 mg/m<sup>3</sup> (as oil mist)- ACGIH Threshold Limit Value (TLV), 10 mg/m<sup>3</sup> (as oil mist) - ACGIH Short Term Exposure Limit (STEL), 5 mg/m<sup>3</sup> (as oil mist) - OSHA Permissible Exposure Limit (PEL)

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VENTILATION: Use in well ventilated area with local exhaust ventilation.

RESPIRATORY PROTECTION: Approved respiratory protective equipment should be used if ventilation is inadequate and breathing of mists or vapors is likely.

EYE PROTECTION: If eye contact is likely, safety glasses with side shields or chemical type goggles should be worn.

SKIN PROTECTION: If prolonged or repeated skin contact is likely, oil impervious gloves should be worn. Good personal hygiene practices should always be followed.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Typical physical properties are given below. Consult Product Data Sheet for specific details.

APPEARANCE: Liquid

COLOR: Brown

ODOR: Mild

ODOR THRESHOLD-ppm: NE

pH: NA

BOILING POINT C(F): > 316(600)

MELTING POINT C(F): NA

FLASH POINT C(F): > 246(475) (ASTM D-92)

FLAMMABILITY (solids): NE

AUTO FLAMMABILITY C(F): NE

EXPLOSIVE PROPERTIES: NA

OXIDIZING PROPERTIES: NA

VAPOR PRESSURE-mmHg 20 C: < 0.1

VAPOR DENSITY: NE

EVAPORATION RATE: NE

RELATIVE DENSITY, 15/4 C: 0.99

SOLUBILITY IN WATER: Negligible

PARTITION COEFFICIENT: NE

VISCOSITY AT 40 C, cSt: 26.4

VISCOSITY AT 100 C, cSt: 5.3

POUR POINT C(F): -62(-80)

FREEZING POINT C(F): NE

VOLATILE ORGANIC COMPOUND: NE

DMSO EXTRACT, IP-346 (WT.%): <3, for mineral oil only

NA=NOT APPLICABLE NE=NOT ESTABLISHED D=DECOMPOSES

FOR FURTHER TECHNICAL INFORMATION, CONTACT YOUR MARKETING REPRESENTATIVE

## 10. STABILITY AND REACTIVITY

STABILITY (THERMAL, LIGHT, ETC.): Stable.

CONDITIONS TO AVOID: Extreme heat.

INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: Product does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

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## 11. TOXICOLOGICAL DATA

### ---ACUTE TOXICOLOGY---

ORAL TOXICITY (RATS): Practically non-toxic (LD50: greater than 2000 mg/kg). ---Based on testing of similar products and/or the components.

DERMAL TOXICITY (RABBITS): Practically non-toxic (LD50: greater than 2000 mg/kg). ---Based on testing of similar products and/or the components.

INHALATION TOXICITY (RATS): Practically non-toxic (LC50: greater than 5 mg/l). ---Based on testing of similar products and/or the components.

EYE IRRITATION (RABBITS): Practically non-irritating. (Draize score: 0 or greater but 6 or less). ---Based on testing of similar products and/or the components.

SKIN IRRITATION (RABBITS): Practically non-irritating. (Primary Irritation Index: greater than 0.5 but less than 3). ---Based on testing of similar products and/or the components.

OTHER ACUTE TOXICITY DATA: \*\*\*\*This mixture or a similar mixture did not result in any fatalities to rats at concentrations (see inhalation toxicity above) substantially higher than the 5 mg/m3 TLV suggested for oil mists.

### ---REPRODUCTIVE TOXICOLOGY (SUMMARY)---

This product is unlikely to produce reproductive effects by any route of exposure. In ExxonMobil laboratory studies, no adverse effects were seen on male reproductive systems of rats exposed to a generic jet engine oil containing 3% TCP for 14 days oral or 13 weeks dermal exposure. In addition, no adverse effects were seen in ovaries of female rats after 13 weeks dermal exposure.

### ---OTHER TOXICOLOGY DATA---

Under normal conditions of use this product is unlikely to produce neurotoxic effects by dermal or inhalation exposure but may produce such effects if orally ingested. While not acutely toxic, repeated applications of 2 g/kg of a generic engine oil containing 3% tricresyl phosphate (TCP), (one dermal application/day, 5 days/week for 90 days), to male and female Sprague-Dawley rats decreased the activities of both serum and red blood cell cholinesterases. TCP was found to be responsible for the observed effects. Acute oral studies with the TCP additive showed inhibition of brain neuropathy target esterase which is indicative of a potential to produce delayed neurotoxicity. Repeated oral administration of 2 g/kg of a generic jet engine oil containing 3% tricresyl phosphate (TCP) (once/day, 5 days/week for 10 weeks) to hens (60mg/kg/day TCP) inhibited brain neuropathy target esterase (NTE) by 70% and caused ataxia or paralysis in 22 of 30 hens in this treatment group.

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## 12. ECOLOGICAL INFORMATION

### ENVIRONMENTAL FATE AND EFFECTS:

This environmental assessment was conducted using information on the individual components as no test data was available for this specific formulation.

**ECOTOXICITY:** This product is expected to be harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

**MOBILITY:** Not established.

**PERSISTENCE AND DEGRADABILITY:** Not established.

**BIOACCUMULATIVE POTENTIAL:** Not established.

## 13. DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL:** Product is suitable for burning in an enclosed, controlled burner for fuel value or disposal by supervised incineration. Such burning may be limited pursuant to the Resource Conservation and Recovery Act. In addition, the product is suitable for processing by an approved recycling facility or can be disposed of at an appropriate government waste disposal facility. Use of these methods is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.

**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 hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity, or reactivity. The unused product is not formulated with substances covered by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

## 14. TRANSPORT INFORMATION

**USA DOT:** NOT REGULATED BY USA DOT.

**RID/ADR:** NOT REGULATED BY RID/ADR.

**IMO:** NOT REGULATED BY IMO.

**IATA:** NOT REGULATED BY IATA.

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**15. REGULATORY INFORMATION**

US OSHA HAZARD COMMUNICATION STANDARD: Product assessed in accordance with OSHA 29 CFR 1910.1200 and determined to be hazardous.

EU Labeling: Product is dangerous as defined by the European Union Dangerous Substances/Preparations Directives.

Symbol: Not applicable.

Risk Phrase(s): R52/53.

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

Safety Phrase(s): Not applicable.

Governmental Inventory Status: All components comply with TSCA, EINECS/ELINCS and AICS.

U.S. Superfund Amendments and Reauthorization Act (SARA) Title III: This product contains no "EXTREMELY HAZARDOUS SUBSTANCES".

SARA (311/312) REPORTABLE HAZARD CATEGORIES:  
CHRONIC

This product contains no chemicals subject to the supplier notification requirements of SARA (313) toxic release program.

The following product ingredients are cited on the lists below:

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
TRICRESYL PHOSPHATE (>2.10%)	1330-78-5	22

--- REGULATORY LISTS SEARCHED ---

1=ACGIH ALL	6=IARC 1	11=TSCA 4	16=CA P65 CARC	21=LA RTK
2=ACGIH A1	7=IARC 2A	12=TSCA 5a2	17=CA P65 REPRO	22=MI 293
3=ACGIH A2	8=IARC 2B	13=TSCA 5e	18=CA RTK	23=MN RTK
4=NTP CARC	9=OSHA CARC	14=TSCA 6	19=FL RTK	24=NJ RTK
5=NTP SUS	10=OSHA Z	15=TSCA 12b	20=IL RTK	25=PA RTK
				26=RI RTK

Code key: CARC=Carcinogen; SUS=Suspected Carcinogen; REPRO=Reproductive

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### 16. OTHER INFORMATION

USE: JET TURBINE LUBRICANT

NOTE: PRODUCTS OF EXXON MOBIL CORPORATION AND ITS AFFILIATED COMPANIES ARE NOT FORMULATED TO CONTAIN PCBS.

Health studies have shown that many hydrocarbons pose potential human health risks which may vary from person to person. Information provided on this MSDS reflects intended use. This product should not be used for other applications. In any case, the following advice should be considered:

**INJECTION INJURY WARNING:** 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.

Precautionary Label Text:

CONTAINS TRICRESYL PHOSPHATE

**WARNING!**

Swallowing this product can cause nervous system disorders including paralysis. Prolonged or repeated breathing of oil mist, or prolonged or repeated skin contact can cause nervous system effects.

Never swallow. Wash hands after handling and before eating. Never use in or around food. Avoid prolonged or repeated overexposure to skin or lungs.

**FIRST AID:** If swallowed, seek immediate medical attention. If medical attention will be delayed, induce vomiting. In case of contact, wash skin with soap and water. Remove contaminated clothing.

For industrial use only. Not intended or suitable for use in or around a household or dwelling.

Never use empty container to carry water or food. Do not cut, puncture, or weld on or near container.

\*\*\*\*\*  
For Internal Use Only: MHC: 0\* 0\* 1\* 0\* 1\*, MPPEC: C, TRN: 430306-00,  
ELIS: 400326, CMCS97: 970833, REQ: MIAMI, SAFE USE: L  
EHS Approval Date: 09JAN2003

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