

Product Name: MOBILTAC 325 NC  
 Revision Date: 18Oct2006  
 Page 1 of 9

## MATERIAL SAFETY DATA SHEET

<b>SECTION 1</b>	<b>PRODUCT AND COMPANY IDENTIFICATION</b>
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### PRODUCT

**Product Name:** MOBILTAC 325 NC  
**Product Description:** Hydrocarbons and Additives  
**Product Code:** 201560404010, 611160-00, 976359  
**Intended Use:** Gear oil

### 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:** 713-613-3661  
**Product Technical Information:** 800-662-4525, 800-947-9147  
**MSDS Internet Address:** <http://www.exxon.com>, <http://www.mobil.com>

<b>SECTION 2</b>	<b>COMPOSITION / INFORMATION ON INGREDIENTS</b>
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### Reportable Hazardous Substance(s) or Complex Substance(s)

Name	CAS#	Concentration*
ASPHALT (PETROLEUM)	8052-42-4	15 - 50%
HYDROTREATED LIGHT DISTILLATE	64742-47-8	8 - 14%
NAPHTHENIC ACIDS, ZINC SALTS	12001-85-3	3 - 6%
STRAIGHT-RUN MIDDLE DISTILLATES	64741-44-2	5 - 10%

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

<b>SECTION 3</b>	<b>HAZARDS IDENTIFICATION</b>
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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. Under conditions of poor personal hygiene and prolonged repeated contact, some polycyclic aromatic compounds (PACs) have been suspected as a cause of skin cancer in humans. 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.

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

Product Name: MOBILTAC 325 NC

Revision Date: 18Oct2006

Page 2 of 9

**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

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.

## 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:** Hydrogen sulfide, Sulfur oxides, Aldehydes, Smoke, Fume, Oxides of carbon, Incomplete combustion products

### FLAMMABILITY PROPERTIES

**Flash Point [Method]:** >97C (207F) [ASTM D-92]

**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>
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### 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)424-8802.

### 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>
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### HANDLING

Hydrogen sulfide (H<sub>2</sub>S) may be given off when this material is heated. Do not depend on sense of smell for warning. Prevent small spills and leakage to avoid slip hazard.

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

### STORAGE

Do not store in open or unlabelled containers.

<b>SECTION 8</b>	<b>EXPOSURE CONTROLS / PERSONAL PROTECTION</b>
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### 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/m <sup>3</sup>		N/A	ACGIH
STRAIGHT-RUN MIDDLE DISTILLATES	Stable Aerosol.	TWA	5 mg/m <sup>3</sup>		N/A	ExxonMobil
STRAIGHT-RUN MIDDLE DISTILLATES	Total vapor and aerosol.	TWA	500 mg/m <sup>3</sup>		N/A	ExxonMobil

Product Name: MOBILTAC 325 NC  
Revision Date: 18Oct2006  
Page 4 of 9

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**Exposure limits/standards for materials that can be formed when handling this product:** When mists / aerosols can occur, the following are recommended: 5 mg/m<sup>3</sup> - ACGIH TLV, 10 mg/m<sup>3</sup> - ACGIH STEL, 5 mg/m<sup>3</sup> - OSHA PEL.

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 special requirements under ordinary 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:

If prolonged or repeated contact is likely, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

**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.

Product Name: MOBILTAC 325 NC  
 Revision Date: 18Oct2006  
 Page 5 of 9

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

## GENERAL INFORMATION

Physical State: Liquid  
 Color: Black  
 Odor: Characteristic  
 Odor Threshold: N/D

## IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15 C ): 0.95  
 Flash Point [Method]: >97C (207F) [ASTM D-92]  
 Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D  
 Autoignition Temperature: N/D  
 Boiling Point / Range: > 174C (345F)  
 Vapor Density (Air = 1): > 2 at 101 kPa  
 Vapor Pressure: [N/D 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: 1200 cSt (1200 mm<sup>2</sup>/sec ) at 40 C  
 Oxidizing Properties: See Sections 3, 15, 16.

## OTHER INFORMATION

Freezing Point: N/D  
 Melting Point: N/A

<b>SECTION 10</b>	<b>STABILITY AND REACTIVITY</b>
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**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.

<b>SECTION 11</b>	<b>TOXICOLOGICAL INFORMATION</b>
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### ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks
<b>Inhalation</b>	
Toxicity: No end point data.	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

Product Name: MOBILTAC 325 NC  
 Revision Date: 18Oct2006  
 Page 6 of 9

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

### CHRONIC/OTHER EFFECTS

#### For the product itself:

Repeated and/or prolonged exposure may cause irritation to the skin, eyes, or respiratory tract.

#### Contains:

Asphalt: May contain low levels of polycyclic aromatic compounds (PACs), some of which are suspected of causing cancer under conditions of poor industrial hygiene and prolonged repeated contact. These PACs may also be inhaled. Inhalation studies at high concentrations of fumes resulted in bronchitis, pneumonitis, fibrosis and cell damage. Avoid contact with the asphalt and inhalation of vapor or aerosol from it.

Additional information is available by request.

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

#### --REGULATORY LISTS SEARCHED--

1 = NTP CARC  
 2 = NTP SUS

3 = IARC 1  
 4 = IARC 2A

5 = IARC 2B  
 6 = OSHA CARC

## SECTION 12 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

More volatile component -- Highly volatile, will partition rapidly to air. Not expected to partition to sediment and wastewater solids.

High molecular wt. 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:

Low molecular wt. component -- Expected to be inherently biodegradable

High molecular wt. component -- Expected to be persistent.

#### Atmospheric Oxidation:

More volatile component -- Expected to degrade rapidly in air

### BIOACCUMULATION POTENTIAL

Product Name: MOBILTAC 325 NC  
Revision Date: 18Oct2006  
Page 7 of 9

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Majority of components -- Has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

## 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

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** 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

**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, ENCS, KECI, PICCS, TSCA

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

Product Name: MOBILTAC 325 NC  
 Revision Date: 18Oct2006  
 Page 8 of 9

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

**SARA (313) TOXIC RELEASE INVENTORY:**

Chemical Name	CAS Number	Typical Value
NAPHTHENIC ACIDS, ZINC SALTS	12001-85-3	3 - 6%

**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
NAPHTHENIC ACIDS, ZINC SALTS	12001-85-3	13, 15, 17
STRAIGHT-RUN MIDDLE DISTILLATES	64741-44-2	17

--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 16	OTHER INFORMATION
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N/D = Not determined, N/A = Not applicable

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

No revision information is available.

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Product Name: MOBILTAC 325 NC  
Revision Date: 18Oct2006  
Page 9 of 9

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

PPEC: A

DGN: 2009222XUS (1012316)

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