ExonMobil

7489457-00 GEAR LUBE (489457) MATERIAL SAFETY DATA BULLETIN _____ 1. PRODUCT AND COMPANY IDENTIFICATION PRODUCT NAME: GEAR LUBE (489457) SUPPLIER: EXXON MOBIL CORPORATION 3225 GALLOWS RD. FAIRFAX, VA 22037 24 - Hour Health and Safety Emergency (call collect): 609-737-4411 24 - Hour Transportation Emergency (Primary) CHEMTREC: 800-424-9300 (Secondary) 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: 713-613-3661 MSDS Internet Website: http://www.exxon.com, http://www.mobil.com 2. COMPOSITION/INFORMATION ON INGREDIENTS CHEMICAL NAMES AND SYNONYMS: PET. HYDROCARBONS AND ADDITIVES GLOBALLY REPORTABLE MSDS INGREDIENTS: Substance Name Approx. Wt% BITUMEN OR VACUUM RESIDUE 70-80 (8052 - 42 - 4)See Section 8 for exposure limits (if applicable). 3. HAZARDS IDENTIFICATION

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

EMERGENCY OVERVIEW: Black Viscous Liquid. DOT ERG No. : NA

POTENTIAL HEALTH EFFECTS: Under normal conditions of intended use, this product does not pose a risk to health. Excessive exposure may result in eye, skin or respiratory irritation.

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 or waterless skin cleaner. Immediately remove contaminated clothing. Launder contaminated clothing before reuse. (See Section 16 - Injection Injury)

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

INGESTION: Not expected to be a problem. Seek medical attention if
 discomfort occurs. Do not induce vomiting.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical and water fog. SPECIAL FIRE FIGHTING PROCEDURES: Water should be used to keep fire-exposed containers cool. 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.

Flash Point C(F): > 203(397) (ASTM D-93).

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/releases as required to appropriate authorities. U.S. Coast Guard and EPA regulations require immediate reporting of spills/releases that could reach any waterway including intermittent dry creeks. Report spill/release to Coast Guard National Response Center 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:

LAND SPILL: Shut off source taking normal safety precautions. 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.

WATER SPILE: Confine with booms if skimming equipment is avaliable

WATER SPILL: Confine with booms if skimming equipment is avaliable to recover the spill. Otherwise disperse in unconfined waters, if permitted by local authorities and environmental agencies. If permitted by regulatory authorities the use of suitable dispersants should be considered where recommended in local oil spill

procedures. On release to water, asphalts/bitumens tend to float or sink, depending upon density; they show little tendency to disperse and are persistent in this medium, the main physical effect being adsorption to the sediment.

ENVIRONMENTAL PRECAUTIONS: Prevent material from entering sewers, water sources or low lying areas; advise the relevant authorities if it has, or if it contaminates soil/vegetation.

PERSONAL PRECAUTIONS: See Section 8

7. HANDLING AND STORAGE

HANDLING: Avoid contact with skin. Avoid inhalation of vapors or mists. Use in well ventilated area away from all ignition

sources. See Section 8 for additional personal protection advice when handling this product.

STORAGE: Store in a cool area.

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/m3 (as oil mist) - ACGIH Threshold Limit Value (TLV), 10~mg/m3 (as oil mist) - ACGIH Short Term Exposure Limit (STEL), 5~mg/m3 (as oil mist) - OSHA Permissible Exposure Limit (PEL)

Substance Name (CAS-No.)

Source ppm mg/m3 ppm mg/m3

BITUMEN OR VACUUM RESIDUE

(8052-42-4)

as inh benz-sol Fumes

ACGIH

0.5

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

VENTILATION: Use in well ventilated area with local exhaust ventilation. Ventilation equipment must be explosion proof. RESPIRATORY PROTECTION: Use supplied-air respiratory protection in confined or enclosed spaces, if needed.

EYE PROTECTION: If splash with liquid is possible, chemical type goggles should be worn.

SKIN PROTECTION: 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: Viscous Liquid COLOR: Black ODOR: Mild Petroleum ODOR THRESHOLD-ppm: NE AN: Hq BOILING POINT C(F): NE MELTING POINT C(F): NA FLASH POINT C(F): > 203(397) (ASTM D-93) FLAMMABILITY (solids): NE AUTO FLAMMABILITY C(F): NE EXPLOSIVE PROPERTIES: NA OXIDIZING PROPERTIES: NA VAPOR PRESSURE-mmHg 20 C: NE VAPOR DENSITY: NE EVAPORATION RATE: NE RELATIVE DENSITY, 15/4 C: 0.97 SOLUBILITY IN WATER: Negligible PARTITION COEFFICIENT: NE VISCOSITY AT 40 C, cSt: NE VISCOSITY AT 100 C, cSt: NE POUR POINT C(F): NE 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 and high energy sources of ignition. INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizers. HAZARDOUS DECOMPOSITION PRODUCTS: Product does not decompose at ambient temperatures. HAZARDOUS POLYMERIZATION: Will not occur. ______ 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): Not established
- EYE IRRITATION (RABBITS): Practically non-irritating. (Draize score: greater than 6 but 15 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: Inhalation of oil mist or vapors at elevated temperature may cause respiratory irritation.
- No significant adverse effects were found in studies using repeated dermal applications of asphalt/bitumen to the skin of laboratory animals for 28 days at 2 g/kg. Local dermal irritation and some weight loss was observed the latter possibly due to the effect
 - animals for 28 days at 2 g/kg. Local dermal irritation and some weight loss was observed, the latter possibly due to the effect of irritation. Solvent carrier may increase skin irritation potential.

---CHRONIC TOXICOLOGY (SUMMARY)---

Chronic mouse skin painting studies of various solvent/distillate cutback non-oxidized asphalt generally showed little evidence of carcinogenic effects and only localized dermal irritation was observed. Inhalation studies of high airborne concentrations of asphalt fumes in rats and mice produced bronchitis, pneumonitis, and lung changes such as fibrosis and cell damage. Prolonged repeated skin contact may cause skin irritation and/or dermatitis.

---SENSITIZATION (SUMMARY) ---

Asphalt/bitumen was not sensitizing when tested in a Buehler Skin Sensitization Assay in guinea pigs.

---OTHER TOXICOLOGY DATA---

Some asphalts/bitumens may contain low levels of polycyclic aromatic compounds(PACs), some of which, when made available by dilution with solvents or oils, and under conditions of poor personal hygiene and prolonged repeated contacted, are suspected as a cause of skin cancer in humans.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE AND EFFECTS:

- In the absence of specific environmental data for this product, this assessment is based on information for representative substances.
- ECOTOXICITY: Available ecotoxicity data and predicted water solubilities for the major components of this product indicates that adverse effects to aquatic organisms are not expected from this product.
- MOBILITY: When released into the environment, adsorption to sediment and soil will be the predominant behavior of this product. This product is expected to have little tendency to disperse in aqueous phases and is expected to be persistent in this medium,

the main physical effect being adsorption to sediment. In soil, the components of this product are immobile, adsorption to solids again being the main physical process.

PERSISTENCE AND DEGRADABILITY: This product is expected to be persistent.

BIOACCUMULATIVE POTENTIAL: Bioaccumulation is unlikely due to the very low water solubility of this product, therefore bioavailability to aquatic organisms is minimal.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Product is suitable for burning in an enclosed, controlled burner for fuel value. 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.

IMO: NOT REGULATED BY IMO.

IATA: NOT REGULATED BY IATA.

15. REGULATORY INFORMATION

US OSHA HAZARD COMMUNICATION STANDARD: This product may be used in certain applications where temperatures may lead to generation of asphalt fumes.

EU Labeling: EU labeling not required.

Governmental Inventory Status: All components comply with TSCA.

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

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

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 *

ASPHALT (PETROLEUM)

8052-42-4 1, 18, 19, 20, 21, 23, 25, 26

--- 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

* 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.

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

16. OTHER INFORMATION

USE: GEAR OIL

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 PETROLEUM ASPHALTS

CAUTION!

MAY CAUSE NOSE, THROAT AND LUNG IRRITATION, DIZZINESS, NAUSEA, LOSS OF CONSCIOUSNESS. EXPOSURE TO HIGH FUME CONCENTRATIONS FROM HEATED PRODUCT MAY CAUSE EYE AND RESPIRATORY TRACT IRRITATION.

Keep away from heat, sparks, and flame. Avoid contact with skin or clothing. Avoid breathing vapors or fumes. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling.

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.

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.

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. Refer to product Material Safety Data Sheet for further safety and health information.

For Internal Use Only: MHC: 1* 1* NE 1* 1*, MPPEC: C, TRN: 7489457-00, CMCS97: 97R035, REQ: US - MARKETING, SAFE USE: C EHS Approval Date: 12NOV2001

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