

MATERIAL SAFETY DATA SHEET

EXXON COMPANY, U.S.A. P.O. BOX 2180 HOUSTON, TX 77252-2180

A. IDENTIFICATION AND EMERGENCY INFORMATION

PRODUCT NAME
ESB MIC158-A (485406)

PRODUCT CODE
485406 - 86529

PRODUCT CATEGORY
Petroleum Lubricating Grease

PRODUCT APPEARANCE AND ODOR
Ivory grease
Mineral oil odor

MEDICAL EMERGENCY TELEPHONE NUMBER
(713) 656-3424

TRANSPORTATION EMERGENCY TELEPHONE NUMBERS:
(BAYTOWN) (281) 834-3296 (CHEMTREC) 1-800-424-9300

B. COMPONENTS AND HAZARD INFORMATION

COMPONENTS	CAS NO. OF COMPONENTS	APPROXIMATE CONCENTRATION
Lubricating oils (petroleum), hydrotreated spent and Residual oils (petroleum), solvent-dewaxed	64742-58-1 and 64742-62-7	Less than 3%
Distillates (petroleum), hydrotreated light naphthenic and Distillates (petroleum), hydrotreated heavy naphthenic	64742-53-6 and 64742-52-5	Approximately 45%
Distillates (petroleum), solvent-dewaxed heavy paraffinic or Distillates (petroleum), solvent-refined heavy paraffinic or Distillates (petroleum), hydrotreated heavy paraffinic	64742-65-0 or 64741-88-4 or 64742-54-7	Approximately 38%
Octadecanoic acid, 12-hydroxy-, methyl ester, lithium salt	53422-18-5	Approximately 6%
Zinc oxide	1314-13-2	Approximately 5%
Proprietary additives	Mixture	Approximately 3%

This product, as manufactured by Exxon, does not contain polychlorinated biphenyls (PCB's).

All components of this product are listed on the U.S. TSCA inventory.

See Section E for Health and Hazard Information.

See Section H for additional Environmental Information.

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS)Health Flammability Reactivity
1 1 0

BASIS

Recommended by Exxon

EXPOSURE LIMIT FOR TOTAL PRODUCT5 mg/m³ for oil mist (aerosol) for
an 8-hour workday

BASIS

OSHA Regulation 29 CFR 1910.1000 and
recommended by the American Conference
of Governmental Industrial Hygienists
(ACGIH). ACGIH states that the air is
to be sampled by a method that does not
collect vapor; in addition, it lists a
10 mg/m³ STEL.**C. PRIMARY ROUTES OF ENTRY
AND EMERGENCY AND FIRST AID PROCEDURES****EYE CONTACT**If lubricant gets into the eyes, flush with clear water for 15 minutes or
until irritation subsides. If irritation persists, call a physician.**SKIN**In case of skin contact, remove any contaminated clothing and wash skin with
soap and water. Launder or dry-clean clothing before reuse. 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.**INHALATION**Vapor pressure is very low. Vapor inhalation under ambient conditions is
normally not a problem. If overcome by vapor from hot product, immediately
remove from exposure and call a physician. If breathing is irregular or has
stopped, start resuscitation, administer oxygen, if available. If overexposed
to oil mist, remove from further exposure until excessive oil mist condition
subsides.**INGESTION**

If ingested, DO NOT induce vomiting; call a physician immediately.

D. FIRE AND EXPLOSION HAZARD INFORMATION**FLASH POINT (MINIMUM)**Greater than 160°C (320°F)
ASTM D 92, Cleveland Open Cup**AUTOIGNITION TEMPERATURE**

Not available

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) - HAZARD IDENTIFICATION

Health Flammability Reactivity

1 1 0

BASIS

Recommended by Exxon

HANDLING PRECAUTIONSUse product with caution around heat, sparks, pilot lights, static
electricity, and open flame.**FLAMMABLE OR EXPLOSIVE LIMITS (APPROXIMATE PERCENT BY VOLUME IN AIR)**

Estimated values: Not available

EXTINGUISHING MEDIA AND FIRE FIGHTING PROCEDURESFoam, water spray (fog), dry chemical, carbon dioxide and vaporizing liquid
type extinguishing agents may all be suitable for extinguishing fires
involving this type of product, depending on size or potential size of fire
and circumstances related to the situation. Plan fire protection and response
strategy through consultation with local fire protection authorities or
appropriate specialists.The following procedures for this type of product are based on the
recommendations in the National Fire Protection Association's "Fire Protection

Guide on Hazardous Materials", Tenth Edition (1991):

Use water spray, dry chemical, foam or carbon dioxide to extinguish the fire. Use water to keep fire-exposed containers cool. If a leak or spill has not ignited, use water spray to disperse the vapors and to provide protection for persons attempting to stop a leak. Water spray may be used to flush spills away from exposures. Minimize breathing of gases, vapor, fumes or decomposition products. Use supplied-air breathing equipment for enclosed or confined spaces or as otherwise needed.

DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS

Carbon monoxide and carbon dioxide from burning. Oxides of sulfur, zinc oxide, oxides of nitrogen, sulfur dioxide or hydrogen sulfide, depending upon decomposition conditions.

"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 containers since residue is difficult to remove. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

For work on tanks refer to Occupational Safety and Health Administration regulations, ANSI Z49.1, and other governmental and industrial references pertaining to cleaning, repairing, welding, or other contemplated operations.

"Empty" drum liners retain residue (solid, liquid, and/or vapor) that will burn and can be dangerous. Keep away from heat, sparks, flames, static electricity or other sources of ignition. Do not reuse liners for any purpose whatsoever. Liners should be emptied of contents to the maximum extent practical, then segregated from liners containing other products. Dispose of "empty" liners in an environmentally safe manner and in accordance with governmental regulations.

E. HEALTH AND HAZARD INFORMATION**VARIABILITY AMONG INDIVIDUALS**

Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapors, mists or fumes should be minimized.

EFFECTS OF OVEREXPOSURE (Signs and symptoms of exposure)

None when used with good personal hygiene practices. May otherwise cause skin and eye irritation upon prolonged or repeated contact.

Acute toxicological properties: No data available.

NATURE OF HAZARD AND TOXICITY INFORMATION

Repeated and prolonged overexposure to oil mists may result in droplet deposition, oil granuloma formation, inflammation and increased incidence of infection.

In accordance with the current OSHA Hazard Communication Standard criteria, this product does not require a cancer hazard warning. This is because the product is formulated from base stocks which are severely hydrotreated, severely solvent extracted, and/or processed by mild hydrotreatment and extraction. Alternatively, it may consist of components not otherwise affected by IARC criteria, such as atmospheric distillates or synthetically derived materials, and as such is not characterized by current IARC classification criteria.

Prolonged or repeated skin contact with this product tends to remove skin oils, possibly leading to irritation and dermatitis; however, based on human experience and available toxicological data, this product is judged to be neither a "corrosive" nor an "irritant" by OSHA criteria.

Product contacting the eyes may cause eye irritation.

Product has a low order of acute oral and dermal toxicity, but minute amounts aspirated into the lungs during ingestion or vomiting may cause mild to severe pulmonary injury and possibly death.

This product is judged to have an acute oral LD50 (rat) greater than 5 g/kg of body weight, and an acute dermal LD50 (rabbit) greater than 3.16 g/kg of body weight.

PRE-EXISTING MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED BY EXPOSURE
None recognized

F. PHYSICAL DATA

The following data are approximate or typical values and should not be used for precise design purposes.

BOILING RANGE
Not available

VAPOR PRESSURE
Not available

SPECIFIC GRAVITY (15.6°C/15.6°C)
@ room temperature .947

VAPOR DENSITY (AIR = 1)
Not available

MOLECULAR WEIGHT
Not available

PERCENT VOLATILE BY VOLUME
Not available

pH
Not available

EVAPORATION RATE @ 1 ATM. AND 25°C (77°F) (n-BUTYL ACETATE = 1)
Not available

FOUR. CONGEALING OR MELTING POINT
Not available

SOLUBILITY IN WATER @ 1 ATM. AND 25°C (77°F)
Negligible

VISCOSITY
Greater than 100 SUS @ 100°F

G. REACTIVITY

This product is stable and will not react violently with water. Hazardous polymerization will not occur. Avoid contact with strong oxidants such as liquid chlorine, concentrated oxygen, sodium hypochlorite, calcium hypochlorite, etc., as this presents a serious explosion hazard.

H. ENVIRONMENTAL INFORMATION

CLEAN WATER ACT / OIL POLLUTION ACT

This product may be classified as an oil under Section 311 of the Clean Water Act, and under the Oil Pollution Act. Discharges or spills into or leading to surface waters that cause a sheen must be reported to the National Response Center (1-800-424-8802).

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Recover free product. Add sand, earth, or other suitable absorbent to spill area. Minimize skin contact. Keep product out of sewers and watercourses by diking or impounding. Advise authorities if product has entered or may enter sewers, watercourses, or extensive land areas.

Assure conformity with applicable governmental regulations.

THE FOLLOWING INFORMATION MAY BE USEFUL IN COMPLYING WITH VARIOUS STATE AND FEDERAL LAWS AND REGULATIONS UNDER VARIOUS ENVIRONMENTAL STATUTES:

THRESHOLD PLANNING QUANTITY (TPQ), EPA REGULATION 40 CFR 355 (SARA Sections 301-304)

No TPQ for product or any constituent greater than 1% or 0.1% (carcinogen).

TOXIC CHEMICAL RELEASE REPORTING, EPA REGULATION 40 CFR 372 (SARA Section 318)
 This product contains the following toxic chemical category(ies) subject to the reporting requirements of Section 318 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372 (maximum percent by weight is also provided):
 Zinc compound, maximum % is 5%

HAZARDOUS CHEMICAL REPORTING, EPA REGULATION 40 CFR 370 (SARA Sections 311-312)

EPA HAZARD CLASSIFICATION CODE:	Acute Hazard	Chronic Hazard	Fire Hazard	Pressure Hazard	Reactive Hazard	Not Applicable XXX

I. PROTECTION AND PRECAUTIONS

VENTILATION

Use local exhaust to capture vapor, mists or fumes, if necessary. Provide ventilation sufficient to prevent exceeding recommended exposure limit or buildup of explosive concentrations of vapor in air. No smoking, or use of flame or other ignition sources.

RESPIRATORY PROTECTION

Use supplied-air respiratory protection in confined or enclosed spaces, if needed.

PROTECTIVE GLOVES

Use chemical-resistant gloves, if needed, to avoid prolonged or repeated skin contact.

EYE PROTECTION

Use splash goggles or face shield when eye contact may occur.

OTHER PROTECTIVE EQUIPMENT

Use chemical-resistant apron or other impervious clothing, if needed, to avoid contaminating regular clothing, which could result in prolonged or repeated skin contact.

WORK PRACTICES / ENGINEERING CONTROLS

To prevent fire or explosion risk from static accumulation and discharge, effectively ground product transfer system in accordance with (THE) National Fire Protection Association PUBLICATIONS.

Keep containers closed when not in use. Do not store near heat, sparks, flame or strong oxidants.

In order to prevent fire or explosion hazards, use appropriate equipment.

Information on electrical equipment appropriate for use with this product may be found in the latest edition of the National Electrical Code (NFPA-70). This document is available from the National Fire Protection Association, Batterymarch Park, Quincy, Massachusetts 02269.

PERSONAL HYGIENE

Minimize breathing vapor, mist or fumes. Avoid prolonged or repeated contact with skin. Remove contaminated clothing; launder or dry-clean before re-use. Remove contaminated shoes and thoroughly clean before re-use; discard if oil-soaked. Cleanse skin thoroughly after contact, before breaks and meals, and at end of work period. Product is readily removed from skin by waterless hand cleaners followed by washing thoroughly with soap and water.

J. TRANSPORTATION AND OSHA RELATED LABEL INFORMATION

TRANSPORTATION INCIDENT INFORMATION

For further information relative to spills resulting from transportation incidents, refer to latest Department of Transportation Emergency Response Guidebook for Hazardous Materials Incidents.

U.S. DOT HAZARDOUS MATERIALS SHIPPING DESCRIPTION
Not regulated**OSHA REQUIRED LABEL INFORMATION**

In compliance with hazard and right-to-know requirements, where applicable OSHA Hazard Warnings may be found on the label, bill of lading or invoice accompanying this shipment.

Note: Product label may contain non-OSHA related information also.

The health and safety information presented herein must be used in conjunction with the pertinent standards for training, work practices and facilities design established by OSHA, NIOSH, NFPA, API, NEC, NSC, UNDERWRITERS, BUREAU OF MINES, and similar organizations.

The information and recommendations contained herein are, to the best of Exxon's knowledge and belief, accurate and reliable as of the date issued. Exxon does not warrant or guarantee their accuracy or reliability, and Exxon shall not be liable for any loss or damage arising out of the use thereof.

The information and recommendations are offered for the user's consideration and examination, and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use. If buyer repackages this product, legal counsel should be consulted to insure proper health, safety and other necessary information is included on the container.

The Environmental Information included under Section H hereof as well as the Hazardous Materials Identification System (HMIS) and National Fire Protection Association (NFPA) ratings have been included by Exxon Company, U.S.A. in order to provide additional health and hazard classification information. The ratings recommended are based upon the criteria supplied by the developers of these rating systems, together with Exxon's interpretation of the available data.

FOR LUBRICANTS TECHNICAL ASSISTANCE CALL: 1-800-443-9966

FOR FUELS TECHNICAL ASSISTANCE CALL: 713-656-4955

FOR AN MSDS OR ASSISTANCE WITH AN MSDS, DIRECT INQUIRIES TO THE ADDRESS BELOW OR CALL:

MARKETING TECHNICAL SERVICES
EXXON COMPANY, U.S.A.
ROOM 2344
P. O. BOX 2180
HOUSTON, TX 77252-2180
(713) 656-5949

IF YOU HAVE AN IMMEDIATE NEED FOR AN MSDS, DIAL 1-800-298-4007 FOR A FAXED COPY.