8.3 (N)ER Model Load Chain Grease Material Safety Data Sheet (MSDS)

Effective date: November 9, 1999 MSDS No. 601008

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY IDENTIFICATION	NIPPON MITSUBISHI OIL CORPORATION 3-12, Nishi Shimbashi 1-chome, Minato-ku, Tokyo, 105-8412, Japan
EMERGENCY TELEPHONE NUMBER:	+81-3-3502-9168
TELEPHONE NUMBER FOR INFORMATION:	+81-3-3502-1111
FAX NUMBER FOR INFORMATION:	+81-3-3502-9365
PRODUCT NAME:	EPNOC GREASE AP O
PRODUCT USE:	Lubricating grease

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPOSITION

Components	Amount (%)	Limit
Highly refined petroleum oil	>89	5mg/m^3 TWA-OSHA (Mineral Oil Mist #1) 5 mg/m^3 TWA-ACGIH (Mineral Oil Mist #1)
Thickener (Lithium Soap)	< 4	
Additives	< 7	
Friction Modifiers		
Oxidation Inhibitors		
Rust Inhibitors		

Hazardous Information

#1 Highly refined petroleum oil, by definition, is considered hazardous according OSHA. Because it carries the Threshold Limit Value (TLV) for mineral oil mist.

SECTION 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Warning statement:

Caution!	Prolonged or repeated contact with skin may cause irritation in some cases.

Precautionary Measures:

Avoid breathing vapor and mist. Keep container closed.

Avoid contact with eyes, skin, and clothing.

Wash thoroughly after handling. Keep away from heat.

Potential health effect:

Eyes:	May cause minor irritation.
Skin:	May cause minimal skin irritation.
Inhalation:	Vapor or mist, in excess of permissible concentrations, or in unusually high concentrations generated from spraying, heating the material, or as from exposure in poorly ventilated areas or confined spaces, may cause irritation of the nose and throat, headache, nausea and drowsiness.
Ingestion:	May cause abdominal discomfort, nausea or diarrhea.
Sensitization properties:	Unknown
Chronic Properties:	If prolonged exposure occurs, nausea, headache, diarrhea, and physical discomfort.
Other remarks:	None

SECTION 4. FIRST AID MEASURES

Eyes:	Flush immediately with water for at least 15 minutes. Get immediate medical attention.
Skin:	Wash with soap and water. Get medical attention if irritation develops. Launder contaminated clothing before reuse.
Inhalation:	Remove exposed person to fresh air if adverse effects are observed.
Ingestion:	Do not make person vomit unless directed to do so by medical personnel.
Note to physician:	Treat symptomatically.

SECTION 5. FIRE FIGHTING MEASURES

Flash point (Typical), ºC:	Not Determined
Autoignition tempt., ºC:	Not Determined
Flammability limits:	Not Determined
Extinguishing media:	Carbon Dioxide (CO_2), dry chemical, or foam.
Special fire fighting procedures:	Recommend wearing self-contained breathing apparatus. Water may cause splattering. Material will float on water.
Unusual fire & explosion hazards:	Toxic fumes, gases or vapors may evolve on burning.
Explosion date:	Material does not have explosive properties.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Procedures in Case of Accidental Release, Breakage, or Leakage:

Stop the source of the leak or release. Clean up releases as soon as possible. Contain liquid to prevent further contamination of soil, surface water or groundwater. Clean up small spills using appropriate techniques such as absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Follow prescribed procedures for reporting and responding to larger releases.

SECTION 7. HANDLING AND STORAGE

Do not weld, heat or drill container. Replace cap or bung. Emptied container still contains hazardous material which may ignite with explosive violence if heated sufficiently.

Minimum feasible handling temperature should be maintained.

Periods of exposure to high temperatures should be minimized.

Water contamination should be avoided.

CAUTION: Do not use pressure to empty drum or drum may rupture with explosive force.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection:	Chemical type goggles or face shield optional.
Skin Protection:	Avoid prolonged or frequently repeated skin contact by wearing impervious protective clothing including gloves.
Respiratory Protection:	Wear a breathing mask.
Ventilation:	No special ventilation is usually necessary. However, if operating conditions create high air borne concentrations of this material, special ventilation may be needed.
Other clothing and equipment:	No special clothing or equipment is usually necessary.
Work practices, hygienic practices:	No information is available.
Other handling and storage requirements:	No information is available.
Protective measures during maintenance of contaminated equipment:	No data available.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Odor		Slight odor
Appearance		Light brown buttery
Boiling point	ºC	No Data Available
Solubility		Insoluble in water
Density	@15ºC, g/cm^3	No data available
Dropping point	ºC	186
Penetration worked	@25ºC, 60W	359
DMSO Extract (Base oil)	Mass % (IP 346)	< 3

SECTION 10. STABILITY AND REACTIVITY

Stability:	Stable
Condition to Avoid:	See the Handling and Storage section for further details.
Incompatibility (materials to avoid):	Acids. Oxidizing agents. Halogens and halogenated compounds.
Hazardous Polymerization:	Will not occur.
Thermal decomposition:	Smoke, carbon monoxide, aldehydes and other products of incomplete combustion. Hydrogen sulfide and alkyl mercaptans and sulfides may also be released. Under combustion conditions, oxides of the following elements will be formed: Calcium, Sulfur, Zinc.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Oral:	No Data Available	Believed to be greater than 5/kg (rat) Practically non-toxic
Dermal:	No Data Available	Believed to be greater than 3 g/kg (rabbit) Practically non-toxic
Carcinogen:	OSHA	This material is listed as Group 3 by IARC
(Base oil)	EU	The classification as a carcinogen need not apply.

SECTION 12. ECOLOGICAL INFORMATION

Biodegradation:	No Data Available
Environmental fate:	This material is not expected to present any environmental problems other than those associated with oil spills.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:

Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. Contact local environmental or health authorities for approved disposal of this material.

SECTION 14. TRANSPORT INFORMATION

The description shown may not apply to all shipping situations.

DOT Proper Shipping Name:	Not applicable
IMDG Proper Shipping Name:	Not applicable
ICAO Proper Shipping Name:	Not applicable
TDG Proper Shipping Name:	Not applicable
NFPA Proper name:	Class 1.
UN Number:	Not applicable

SECTION 15. REGULATION INFORMATION	
The U.S. TSCA inventory:	All components of this material are on the US TSCA inventory. May require notification before sale in US. No data available.
The EC EINECS inventory:	All components of this material are on the EC EINECS inventory. May require notification before sale in EC. No data available. Some components of this material is on the EC ELINCS inventory. The other components are on the EC EINECS inventory.
The CANADA DSL inventory:	All components of this material are on the DSL inventory. May require notification before sale in CANADA. No data available.
The AUSTRALIA AICS inventory:	All components of this material are on the AICS inventory. May require notification before sale in AUSTRALIA. No data available.
The KOREA TCCL inventory:	All components of this material are on the TCCL inventory. May require notification before sale in KOREA. No data available.
The PHILIPPINE PICCS inventory:	All components of this material are on the PICCS inventory. May require notification before sale in PHILIPPINE. No Data Available.

SECTION 16 OTHER INFORMATION

None

References:

3. Handbook of Toxic and Hazardous Chemicals and Carcinogens (2nd. ed.)

4. Registry of Toxic Effects of Chemical Substances (HIOSH, 1983)

Material safety data sheets are provided as reference information on the safe handling of hazardous or harmful materials to companies using such materials. When referring to this data sheet, companies should remember that they must take responsibility for implementing the proper measures for their own particular situations. This data sheet is not a guarantee of safety.