Material Safety Data Sheet

Process Oil A-2

MICHANG OIL IND. CO., LTD.

SECTION 1. Product & Company Identification

Product Name	: Process Oil A-2
Chemical Description	: Petroleum Hydrocarbon
Manufacturer's Name & Address	: MICHANG OIL IND. CO., LTD. 201 Dongsam-Dong, Youngdo-Gu, Pusan, Korea. Tel : 82-51-409-5019

SECTION 2. Composition & Information on Ingredients

Composition

Chemical / Common Name	: Extracts(petroleum), heavy prarffinic distillates solvent : Distillates(Petroleum),Severely Hydrotreated heavy paraffinic
Cas No:	: ~~64742-04-7~~ : 64742-54-7
OSHA PEL & ACGIH TLV	: OSHA PEL 5 mg/m³ ACGIH TLV 5 mg/m³
Other Limits	: Not classified as Hazardous chemical

SECTION 3. Hazards Identification

This product is of low oral and dermal toxicity and under normal conditions of use should present no significant health hazards. However, prolonged and repeated skin contact should be avoided to preclude any risk of a dermatitis

Handing precautions should be strictly observed.

SECTION 4. First Aid

Eye Contact	: Flush eyes with plenty of water until irritation .if any .subsides.
Skin Contact	: Remove and wash contaminated clothing and shoes. Wash with soap and water. When appropriate. Remove contaminated clothing. including shoes. Clothing and shoes should be thoroughly cleaned before reuse.

Inhalation	: Vapor inhalation under ambient conditions is normally not a problem. Move person to fresh air immediately. If breathing has stopped, apply artificial respiration and administer oxygen if necessary.
Ingestion	: Seek medical attention. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

SECTION 5. Fire Fighting Measures

Flash point (COC℃)	: 236 ℃(ASTM D 92)
Flammability Limits	: LEL 1.0 % / UEL 7.0 % (Estimate)
Extinguishing Media	: Foam, Dry Chemical, Carbon dioxide, Extinguishers.
Fire and Explosion Hazards	: Combustible material, low hazard. The product can form flammable mixtures of can burn only on heating above the flash point. However, minor contamination by hydrocarbons of higher volatility may increase the hazard.
Special Fire Fighting Procedures	: Water jets should not be used since product will float and spread out on top of water and may reignite.
Unusual Fire Explosion Hazards	: Low hazard. Material can from flammable mixture or can burn only upon heating above flash

SECTION 6. Accidental Release Measures

Do not empty into drains. Take up with absorbent material, e.g. sawdust, sand. Fill materials taken up into disposable container.

Waste Disposal	: Contain spilled liquid with sand pr earth. Do not use combustible materials. Recover by pumping (use an explosion proof or hand pump) or with a suitable absorbent).
Procedure in Case of Leakage :	: Remove with vacuum trucks or by pumping into storage facilities. Soak up residue with absorbent such as vermiculite. Dispose of absorbent and contaminated soil in same manner as product. Flush areas into chemical sewer to remove residual. Provide adequate ventilation during clean-up. Avoid excessively high temperature conditions for prolonged period.

SECTION 7. Handing and Storage

Store in dry place at room temperature. The protective measures as usual in the mineral oil industry have to be observed. Adequate ventilation in working area may be necessary.
Provide suitable mechanical equipment for the safe handing of drums and heavy packages.

Load/Unload temperature, ℃	: Ambient to 40℃
Storage Temperature, ℃	: Ambient to 40℃
Special precautions	: Keep containers closed when not in use. Prevent small spillage and leakage to avoid slip hazard.

SECTION 8. Exposure Controls & Personal Protection

Eye	: Wear chemical goggles to eye contact
Skin	: Use chemical-resistant gloves. If need.
Inhalation	: Not required under nominal usage. If product is handled in such a way as to created a vapor or mist, NIOSH approved respirator should be used to prevent overexposure.
Ventilation	: Adequate ventilation in accordance with good engineering practice must be provided to keep any oil mist concentration below the PEL.
Exposure Limits	: 5mg/m^3 for mineral oil mist average over an 8 hour daily exposure (ACGIH)

SECTION 9. Physical & Chemical Properties

Density, g/cm^3(@15/4℃)	: 0.9965
Viscosity, cSt, (@40℃)	: 17.00
Flash Point (℃)	: 236
Pour Point (℃)	: +7.5
Aniline Point (℃)	: 45.0
Appearance	: Dark & Green
Solubility Water	: Insoluble

SECTION 10. Stability & Reactivity

Incompatible Materials	: Avoid contact with strong oxidants such as liquid chlorine and concentrated oxygen. Hazardous Decomposition Products : Product does not decompose at ambient temperature.
Stability	: Stable under normal ambient.
Reactivity Data	: Condition to avoid : None Known.
	: Materials to avoid : None Known.
	: Hazardous polymerization : Will not occur.
Products evolved when subjected to heat or combustion	: Carbon monoxide, carbon dioxide, aldehides & ketones, combustion products of nitrogen and sulfur.

SECTION 11. Toxicological Information

Acute and Chronic

Acute Oral effects	: The oral LD50 for rate is ≥5g/kg(estimate)
Acute Inhalation effects	: LC 50 No data

Skin irritation : Mildly irritating(long time or repeated)

SECTION 12. Ecological Information

In the absences of specific environmental data for this product , this assessment is based on information for general hydrocarbon components found in lubricant mineral oils. Lubricant mineral oils, immediately following a release into the environment, will remain largely on the oil surface, on the ware surface and in the water.
Based on chemical/physical information from the literature for this product category, no harmful effects to terrestrial or aquatic habitats would be expected. This product is expected to be resistant to biodegradation and t persist in the environment

SECTION 13. Disposal Consideration

Waste Disposal Method :

Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulation. Contact local environmental or health authorities for approved disposal of this material.
Waste materials should be dumped or buried in an approved industrial waste landfill, Large quantities may be disposed of by incineration in a suitable combustion chamber.

SECTION 14. Transport Information

Transportation

Dot : Proper shipping name	: Not determined
IMDG : Proper shipping name	: Not determined
IATA : Proper shipping name	: Not determined
TDG : Proper shipping name	: Not determined
Usual Shipping Containers	: Tank Trucks, drums, cans

SECTION 15. Regulatory Information

Regulatory Lists

OSHA(29 CFR 1910.1200)	: Not Classified as hazardous
EC Dangerous Substances/Preparations Directives	: Not Dangerous
SARA Title Ⅲ	: Contains No Extremely Hazardous Substances
SARA 311/312 Reportable Hazard Categories	: None
SARA 313 Toxic Release Program	: Contains No Chemicals

All the components of this material are listed on EINECS , DSL, TSCA, METI, AICS, and KECI.

SECTION 16. Other Information

The information presented herein has been complied form sources considered to be dependable and is accurate to the best of seller's knowledge ; however, seller makes no warranty whatsoever, express, implied of merchantability regarding the accuracy of such data or the results to be obtained from the use thereof.
Seller assumes no responsibility for injury to buyer or to third person or for any damage to any property.
Buyer assumes all such risks.