

Material Safety Data Sheet

S-Oil Corporation

Page 1 of 6

SECTION 1 Product & Company Identification

SUPPLIER : S-Oil Corporation
ADDRESS : 63B/D, 60 Yoido-dong, Yongdungpo-gu, Seoul 150-607, Korea
PRODUCT NAME : **Ultra-S 8**
CHEMICAL DESCRIPTION : Petroleum Hydrocarbon
EMERGENCY TELEPHONE NUMBER : 82-2-3772-5660

SECTION 2 Composition & Information on Ingredients

COMPOSITION

<u>Chemical/Common Name</u>	<u>CAS No.</u>	<u>EINECS No.</u>	<u>Amount</u>
Distillate, Severely Hydrotreated Heavy Paraffinic	64742-54-7	265-157-1	100wt%

EXPOSURE LIMIT FOR TOTAL PRODUCT : 5mg/ m³ for oil mist in air
(ACGIH TLV, OSHA PEL)

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.
Handling precautions should be strictly observed.

SECTION 4 First Aid

Eye Contact : Flush eyes with large amounts of water for 15 minutes while holding eyelids open. Seek medical attention.

Skin Contact : Remove and wash contaminated clothing and shoes. Wash exposed portions of the skin with soap and water. Prolonged or frequent skin contact may cause various skin disorders such as dermatitis, oil acne, skin redness and edema.

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 : Above 230 °C (ASTM D 92) Flammability Limits : 0.9 - 7%

Extinguishing Media : Foam, Dry chemical, Carbon dioxide

Fire and Explosion Hazards : Combustible material, low hazard. The product can form flammable mixtures or 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 : Do not enter confined fire space without protective equipment including NIOSH approved self-contained breathing apparatus. Use water only to cool fire exposed containers.

Unusual Fire and Explosion Hazards : Not Applicable

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 : 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.

Procedures 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 the same manner as the product. Flush areas into chemical sewer to remove residual. Provide adequate ventilation during clean-up.

SECTION 7 Handling 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 handling of drums and heavy packages.

Load/Unload Temperature, °C : Ambient to 40 °C

Storage Temperature, °C : Ambient to 40 °C

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 prevent eye contact.

Skin : Use chemical-resistant gloves, if needed.

Inhalation : Not required under normal usage. If product is handled in such a way as to create a vapor or mist, a NIOSH approved respirator should be used to prevent overexposure. In accordance with 29 CFR 1910.134, use either a full-face, atmosphere-supplying respirator or an air-purifying respirator for organic vapors.

Ventilation : Adequate ventilation in accordance with good engineering practice must be provided to keep any oil mist concentration below the PEL.

Exposure Limits : 5mg/ m³ for mineral oil mist average over an 8 hour daily exposure.
(ACGIH)

SECTION 9 Physical & Chemical Properties

Appearance : Bright & Clear

Vapor Pressure : Not Applicable

Density, g/ cm³ @15 °C : 0.843

Boiling Point : Not Applicable

Flash Point(ASTM D 92), °C : 248

Pour Point(ASTM D 97), °C : -12.5

Viscosity(ASTM D 445), cSt, @40 °C : 41.33

@100 °C : 7.027

DMSO Extract, IP-346 (wt%) : <3

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, aldehydes & ketones, combustion products of nitrogen and sulfur.

SECTION 11 Toxicological Information

Toxicological Information (Animal Toxicity Data)

Median Lethal Dose (LD50 LC50) (Species)

Oral : >5g/Kg(rat) ; practically non-toxic - Based on testing of similar products

Inhalation : >5mg/Ltr(rat) ; practically non-toxic - Based on testing of similar products

Dermal : >5g/Kg(rabbit) ; practically non-toxic - Based on testing of similar products

Irritation Index, Estimation of Irritation (Species)

Skin : believed to be < 0.5/8.0 (rabbit) ; no appreciable effect

Eyes : believed to be < 15/110 (rabbit) ; no appreciable effect

Sensitization : Not Applicable.

Others : No Data Available

SECTION 12 Ecological Information

In the absense 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 soil surface, on the water 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 to 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 land-fill. 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 KECL.

SECTION 16 Other Information

The information presented herein has been compiled with sources considered to be dependable and is accurate to the best of seller's knowledge; however, seller makes no warranty whatsoever 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.

FOR ADDITIONAL INFORMATION ON HEALTH EFFECTS
CONTACT :

Lube Base Oil Domestic Sales Team
S-Oil Corporation
63 Building, 60 Yoido-dong, Yongdungpo-gu
Seoul 150-607, Korea

Issued on June 18, 2008
