

Product name: SUNISO® 160 Refrigeration Oil

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: SUNISO® 160 Refrigeration Oil

Chemical name: Refined Petroleum Oil

Supplier: Sonneborn, Inc.
771 Old Saw Mill River Road
Tarrytown, NY 10591-6716 06749, USA

Emergency telephone number: CHEMTREC (24 hours) 800-424-9300
Sonneborn, Inc. Emergency Response (24 hours) 800-292-5898
416-284-1661

For MSDS, Product Safety, or regulatory inquiries, call: 877-948-2688

Customer Service: Customer Service 877-948-2688

2. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS#	CONCENTRATION
Distillates (petroleum), solvent-refined heavy paraffinic	64741-88-4	> 50.0 %
Solvent refined light paraffinic distillate	64741-89-5	< 50.0 %
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	< 2.0 %

Note(s): This is not a dangerous substance

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

THIS PRODUCT IS A REFINED MINERAL OIL AND IT IS NOT EXPECTED TO PRESENT ANY UNUSUAL HAZARDS, IN PROPER USE.

--- --- CONTENTS MADE IN U.S.A. --- ---

4. FIRST AID MEASURES

Swallowing

Do not induce vomiting. Treat symptomatically. Not expected to be toxic by ingestion.

Product name: SUNISO® 160 Refrigeration Oil**Skin**

No emergency care anticipated. Wash skin with soap and water. Remove contaminated clothing. Wash clothing before re-use. Obtain medical attention if irritation persists.

Inhalation

Obtain medical attention. Oxygen may be given by qualified personnel if breathing is difficult or cyanosis (blue discoloration of skin) is noted. Give artificial respiration if not breathing. Remove to fresh air if aerosol spray is inhaled. Aspiration may cause pulmonary edema or aspiration pneumonia. Exposed persons should be kept under medical observation for at least 48 hours because delayed effects may occur.

Eye contact

Immediately flush eyes with water and continue washing for at least 15 minutes. Obtain medical attention if irritation persists.

5. FIRE-FIGHTING MEASURES

Flash point:	> 187 °C (> 370 °F)
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NFPA CLASSIFICATION

Health: 1	Flammability: 1	Reactivity: 0	Special provisions: -
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Special fire fighting procedures

Use water spray to cool fire-exposed containers and structures. If a rail or tank truck is involved in a fire, ISOLATE for 800 meters (0.5 mile) in all directions. Shut off fuel to fire if it is possible to do so without hazard. If this is impossible, withdraw from the area and let the fire burn out under controlled conditions. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire. Withdraw immediately if rising sound from venting safety device or any discoloration of storage tanks due to fire.

Special protective equipment for firefighters

Body covering protective clothing, full "turn-out" gear. Self-contained breathing apparatus with full face-piece operated in positive pressure mode.

Extinguishing media

Suitable: Treat as an oil fire.
 Small fires:
 - CO2
 - dry powder
 - foam
 Large fires:
 - alcohol-type foam or universal-type foams
 - water fog

Unsuitable: Oil will float on water and can spread any fire.

Unusual fire and explosion hazards

This product will float upon water, so water spray is not a suitable extinguishing agent as it may cause any fire to spread.

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear protective clothing when taking up spill. Eliminate sources of ignition.

Environmental precautions

This product is insoluble in water and will float on the surface. Prevent from entering sewers or drains. Should this product enter sewers or drains, it should be pumped out into an open vessel. Emergency services may need to be called to assist in this operation.

Methods for cleaning up

Floor may be slippery; use care to avoid falling.

Small spills Cover remaining spilled product with dry powder, dry sand, or Vermiculite.

Large spills Large spill: Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal.
Stop leak, if without risk.

7. HANDLING AND STORAGE

HANDLING

Handling precautions

Never use pressure to empty drums. Keep drums tightly closed to prevent contamination. Residual vapors may explode on ignition; do not puncture, drill, grind, or weld near this container. Electrically bond and ground all containers and equipment before transfer or use of material.

STORAGE

Storage requirements

Normal precautions common to safe manufacturing practice should be followed in handling and storage. Store in a dry place. Keep out of strong sunlight. Keep away from heat and flame. Keep container tightly closed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

PERSONAL PROTECTION

Respiratory protection

If vapor and/or mist is generated by heating, spraying, etc., wear an organic vapor respirator with a mist filter. No special respiratory protection is normally required.

Hand protection / protective gloves

Wear oil resistant gloves.

Eye protection

Face shield or chemical splash goggles in case of splashing.

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Skin protection

Wear protective clothing, such as long sleeves to minimize skin contact.

Industrial hygiene measures

Remove contaminated clothing and clean it.

Do not eat or drink at work.

ENGINEERING CONTROLS

Ventilation

Local ventilation is needed in the presence of airborne mists.

EXPOSURE LIMITS

<u>Component</u>	<u>Type</u>	<u>Value</u>	<u>Remark</u>
Mineral Oil Mist	TWA (mist), ACGIH	5.0 mg/m ³	If used in way that generates a "mist" observe the limits for Mineral Oil Mist.
	STEL (mist), ACGIH	10.0 mg/m ³	

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Physical state	Liquid
Color	Amber
Odor	Mild petroleum

OTHER PROPERTIES

Boiling point	> 260 °C at STP unless specified below.
Specific gravity (H₂O=1)	< 1
Vapor pressure	< 0.005 hPa (0.00 mmHg) at 20 °C
Vapor density (air=1)	> 10
Solubility in water	Insoluble
Solubility in organic solvents	Soluble
Partitioning coefficient	log POW: > 6 This product is soluble in oil.
Flash point	> 187 °C (> 370 °F) Method: Cleveland open cup ASTM D 92
Percent volatiles	Nil

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Kinematic viscosity > 30 mm²/s at 40 °C

10. STABILITY AND REACTIVITY

Stability: Stable.

Incompatible materials

Normally unreactive; however avoid contact with:
Strong oxidizing agents.
Sunlight or ultraviolet light.
Heat or high temperature.

Hazardous combustion products

Burning can produce the following combustion products:
Oxides of carbon.
Soot

Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

SWALLOWING

Acute effects

Ingestion is unlikely to have any toxic effects but the product may act as an intestinal lubricant and result in diarrhea and frequent loose stools.
If vomiting occurs, aspiration may cause delayed pulmonary edema and chemical pneumonia.

Test results

Acute toxicity: Remark: No data available.

SKIN ABSORPTION

Acute effects

Harmful effects are not expected from short periods of contact.

Effects of repeated overexposure

Prolonged or repeated contact may lead to skin irritation by dermatitis or oil acne.

INHALATION

Acute effects

Harmful effects are not expected from static vapor at ambient temperature.
Inhalation of mist or spray may be harmful.

Chronic effects

Aspiration may cause pulmonary edema or aspiration pneumonia.
Oil deposits in the lung may lead to fibrosis and reduced pulmonary function.
Prolonged or repeated inhalation of excessive amounts of oil mist or vapors may cause irritation of the respiratory tract.

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Test results

Acute toxicity: Remark: No data available.

SKIN CONTACT

Acute effects

No evidence of harmful effects from available information.

EYE CONTACT

Acute effects

No evidence of harmful effects from available information.

12. ECOLOGICAL INFORMATION

Not expected to be acutely toxic to aquatic organisms. This product is stable in water, and can be mechanically separated from water. The water may be suitable for disposal in a biological waste water treatment plant.

13. DISPOSAL CONSIDERATIONS

General: Incineration is probably the best means of disposal. Dispose of in accordance with appropriate Federal, State, and local regulations.

14. TRANSPORT INFORMATION

DOT Classification

This product is not regulated by DOT.

Freight description road: 65 PETROLEUM OIL, N.O.I.B.N

IMDG Classification

This product is not regulated by IMDG.

ICAO Classification

This product is not regulated by ICAO.

15. REGULATORY INFORMATION

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires submission of annual reports of release of toxic chemicals that appear in 40CFR372 (for SARA 313). This information must be included in MSDS's that are copied and distributed for this material.

Components present in this product at a level which could require reporting under the statute are:

**** NONE ****

New Jersey Worker and Community Right-To-Know Act (Labeling Requirements)

Chemical name

CAS#

New Jersey TS Number

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Solvent refined light paraffinic distillate	64741-89-5
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7

EPA Hazard Categories (SARA 311, 312): None

CHEMICAL INVENTORY

- Canada: The ingredients of this product are on the DSL.
- Europe: The ingredients of this product are on the EINECS inventory.
- United States: The ingredients of this product are on the TSCA inventory.
- Australia: The ingredients of this product are on the AICS inventory.
- China: This product is on the IECSC Inventory.
- Japan: The ingredients of this product are on the ENCS inventory.
- Korea: The ingredients of this product are on the ECL.
- Philippines: The ingredients of this product are on the PICCS.

16. OTHER INFORMATION

FURTHER INFORMATION

MAY BE ON THE INVENTORY LIST BUT NOT NECESSARILY REGISTERED, (Korea, China, New Zealand) CONSULT REGULATORY SPECIALIST.

HMIS RATING

Health: 1	Flammability: 1	Reactivity: 0	PPI: -
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LEGEND

STP	Standard temperature and pressure
W/W	Weight/Weight
0 (HMIS)	Minimal hazard
1 (HMIS)	Slight hazard
2 (HMIS)	Moderate hazard
3 (HMIS)	Serious hazard
4 (HMIS)	Severe hazard
X (HMIS)	Personal protection rating to be supplied by user depending on use conditions

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The opinions expressed herein are those of qualified experts within Sonneborn, Inc. We believe that the information contained herein is current as of the date of this Safety Data Sheet. Since the use of this

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information and of these opinions and the conditions of use of this product are not within the control of Sonneborn, Inc., it is the user's obligation to determine the conditions of safe use of the products.