



SUNISO® 5GS Refrigeration Oil

SUNISO® 5GS

SDS Revision Date (mm/dd/yyyy): 02/06/2019

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## SAFETY DATA SHEET

### SECTION 1. IDENTIFICATION

**Product identifier used on the label**

: **SUNISO® 5GS Refrigeration Oil**

**Product Code(s)** : L325 (P/N 475325), L320 (P/N 475332), L323 (P/N 475338), L326 (P/N 475342) and L353 (P/N 475347).

**Recommended use of the chemical and restrictions on use**

: Severly refined naphthenic refrigeration system lubricant  
Restriction on use: None known .

**Chemical family**

: Petroleum distillates

**Name, address, and telephone number of the supplier:**

**Parker Hannifin Corporation - Sporlan Division**

206 Lange Drive  
Washington, MO, U.S.A.  
63090

Supplier's Telephone # : (636) 239-1111

**24 Hr. Emergency Tel #** : Chemtrec 1-800-424-9300 (Within Continental U.S.); Chemtrec 703-527-3887 (Outside U.S.).

**Name, address, and telephone number of the manufacturer:**

Refer to supplier

### SECTION 2. HAZARDS IDENTIFICATION

**Classification of the chemical**

Amber liquid. Petroleum odor.

This material is not classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

**Label elements**

*Hazard pictogram(s)*

None required under U.S. OSHA Hazcom 2012 and Canadian WHMIS 2015 regulations.

*Signal Word*

Not required

*Hazard statement(s)*

Not required

*Precautionary statement(s)*

Not required

**Other hazards**

Other hazards which do not result in classification:

May cause mild eye irritation. May cause minor respiratory irritation. May cause mild skin irritation.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical name</u>	<u>Common name and synonyms</u>	<u>CAS #</u>	<u>Concentration (% by weight)</u>
Distillates (petroleum), hydrotreated heavy naphthenic	Mineral oil	64742-52-5	80.0 - 100.0



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The exact concentrations of the above listed chemicals are being withheld as a trade secret.

### SECTION 4. FIRST-AID MEASURES

#### Description of first aid measures

- Ingestion* : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms persist.
- Inhalation* : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, give oxygen by qualified medical personnel only. If breathing has stopped, give artificial respiration.
- Skin contact* : IF ON SKIN: Wash off with soap and plenty of water. If irritation persists, seek prompt medical attention.
- Eye contact* : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, seek prompt medical attention.

#### Most important symptoms and effects, both acute and delayed

- : Direct skin contact may cause slight or mild, transient irritation. Direct skin contact may cause slight or mild, transient irritation.

#### Indication of any immediate medical attention and special treatment needed

- : Treat symptomatically.

### SECTION 5. FIRE-FIGHTING MEASURES

#### Extinguishing media

- Suitable extinguishing media* : Dry chemical, foam, carbon dioxide and water fog.

- Unsuitable extinguishing media* : Do not use a solid water stream as it may scatter and spread the fire.

#### Special hazards arising from the substance or mixture / Conditions of flammability

- : None known or reported by the manufacturer.

#### Flammability classification (OSHA 29 CFR 1910.106)

- : Not flammable.

#### Hazardous combustion products

- : Carbon oxides; Phosphorus compounds; Sulphur oxides; Nitrogen oxides (NOx); Polycyclic aromatic hydrocarbons; Other unidentified organic compounds.

#### Special protective equipment and precautions for firefighters

##### *Protective equipment for fire-fighters*

- : Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

##### *Special fire-fighting procedures*

- : Move containers from fire area if safe to do so. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Dike for water control.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

#### Personal precautions, protective equipment and emergency procedures

- : All persons dealing with the clean-up should wear the appropriate chemically protective equipment. Keep all other personnel upwind and away from the spill/release. Restrict access to area until completion of clean-up. Refer to protective measures listed in sections 7 and 8. Material can create slippery conditions.

- Environmental precautions** : Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. For large spills, dike the area to prevent spreading.



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### Methods and material for containment and cleaning up

- : For spilled liquids: absorb spill with inert, non-combustible material such as sand, then place into suitable containers. Do not use combustible absorbents, such as sawdust. Refer to Section 13 for disposal of contaminated material.

### Special spill response procedures

- : If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8802).  
 US CERCLA Reportable quantity (RQ): None reported.

## SECTION 7. HANDLING AND STORAGE

### Precautions for safe handling

- : Use with adequate ventilation. Wear suitable protective equipment during handling. Do not breathe fumes or mists. Avoid contact with skin, eyes and clothing. Keep away from extreme heat and flame. Avoid contact with incompatible materials. Wash thoroughly after handling. Empty containers retain residue (liquid and/or vapour) and can be dangerous.

### Conditions for safe storage

- : Store in a cool, dry, well-ventilated area. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks.

### Incompatible materials

- : Strong oxidizing agents.

## SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<u>Exposure Limits:</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Distillates (petroleum), hydrotreated heavy naphthenic	5mg/m <sup>3</sup> (As 'Oil mist, mineral')	N/Av	5 mg/m <sup>3</sup> (As 'Oil mist, mineral')	N/Av

### Exposure controls

#### Ventilation and engineering measures

- : Use in a well-ventilated area. Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits.

#### Respiratory protection

- : If the TLV is exceeded, a NIOSH/MSHA-approved respirator is advised. Advice should be sought from respiratory protection specialists.

#### Skin protection

- : Wear protective gloves. Advice should be sought from glove suppliers.

#### Eye / face protection

- : Wear eye/face protection. Wear as appropriate: Safety glasses with side-shields or chemical splash goggles.

#### Other protective equipment

- : Ensure that eyewash stations and safety showers are close to the workstation location.

#### General hygiene considerations

- : Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink, smoke or use cosmetics while working with this product. Remove and wash contaminated clothing before re-use. Wash thoroughly after handling.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Amber liquid
- Odour : Petroleum odor
- Odour threshold : N/Av
- pH : N/Av



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Melting/Freezing point : N/Av  
Initial boiling point and boiling range : > 230°C (446°F)  
Flash point : > 93.3°C (200°F)  
Flashpoint (Method) : Pensky Martens Closed Cup  
Evaporation rate (BuAe = 1) : N/Av  
Flammability (solid, gas) : N/Av  
Lower flammable limit (% by vol.) : N/Av  
Upper flammable limit (% by vol.) : N/Av  
Oxidizing properties : None known.  
Explosive properties : Not explosive  
Vapour pressure : < 0.01 mmHg (0.008 kPa)  
Vapour density : N/Av  
Relative density / Specific gravity : < 1  
Solubility in water : Insoluble.  
Other solubility(ies) : N/Av  
Partition coefficient: n-octanol/water or Coefficient of water/oil distribution : log Pow: > 6  
Auto-ignition temperature : N/Av  
Decomposition temperature : N/Av  
Viscosity : 19 - 150 mm<sup>2</sup>/s @ 40°C (104°F)  
Volatiles (% by weight) : N/Av  
Volatile organic Compounds (VOC's) : N/Av  
Absolute pressure of container : N/Av  
Flame projection length : N/Av  
Other physical/chemical comments : No additional information.

### SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not normally reactive.  
Chemical stability : Stable under normal conditions.  
Possibility of hazardous reactions : Hazardous polymerization does not occur.  
Conditions to avoid : Avoid heat and open flame.  
Incompatible materials : See Section 7 (Handling and Storage) for further details.  
Hazardous decomposition products : None known, refer to hazardous combustion products in Section 5.

### SECTION 11. TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure:

Routes of entry inhalation : YES  
Routes of entry skin & eye : YES



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**Routes of entry Ingestion** : YES

**Routes of exposure skin absorption**  
 : NO

**Potential Health Effects:**

**Signs and symptoms of short-term (acute) exposure**

*Sign and symptoms Inhalation*

: If product is heated or mists are formed, inhalation may cause irritation to the nose, throat and respiratory tract.

*Sign and symptoms ingestion*

: May cause irritation of mouth, throat, and stomach. May cause nausea, stomach pain and vomiting.

*Sign and symptoms skin*

: Direct skin contact may result in little or no irritation. Oils can block the skin pores causing an acne-like disorder.

*Sign and symptoms eyes*

: May cause mild transient irritation.

**Potential Chronic Health Effects**

: Prolonged skin contact may cause skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.

**Mutagenicity**

: Not expected to be mutagenic in humans.

**Carcinogenicity**

: No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP. Use caution when pouring this material. This product can generate a complex mixture of airborne material during heating or in a fire. This combustion material can include carcinogenic polycyclic aromatic hydrocarbons.

**Reproductive effects & Teratogenicity**

: Not expected to have other reproductive effects.

**Sensitization to material**

: Not expected to be a skin or respiratory sensitizer.

**Specific target organ effects**

: Target Organs:  
 Eyes, skin, respiratory system and digestive system.

This material is not classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

**Medical conditions aggravated by overexposure**

: Pre-existing skin, eye and respiratory disorders.

**Synergistic materials**

: None known or reported by the manufacturer.

**Toxicological data**

: There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.

<u>Chemical name</u>	<u>LC<sub>50</sub>(4hr)</u>	<u>LD<sub>50</sub></u>	
	<u>inh, rat</u>	<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
Distillates (petroleum), hydrotreated heavy naphthenic	2180mg/m <sup>3</sup> (mist)	> 5000 mg/kg	> 2000 mg/kg

**Other important toxicological hazards**

: None known or reported by the manufacturer.



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### SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity** : See the following tables for individual ingredient ecotoxicity data.  
 The ecological characteristics of this product have not been fully investigated. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.

**Ecotoxicity data:**

<u>Ingredients</u>	CAS No	Toxicity to Fish		
		LC50 / 96h	NOEC / 21 day	M Factor
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	>100 mg/L (Fathead minnow)	N/Av	None.

<u>Ingredients</u>	CAS No	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 day	M Factor
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	>1000 mg/L Water flea	N/Av	None.

<u>Ingredients</u>	CAS No	Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	> 100 mg/L/72hr (Green algae)	N/Av	None.

**Persistence and degradability** : No data is available on the product itself. Distillates (petroleum), hydrotreated heavy naphthenic is not considered readily biodegradable and is insoluble in water. The substance may persist in the environment.

**Bioaccumulation potential** : No data is available on the product itself.

<u>Components</u>	<u>Partition coefficient n-octanol/water (log Kow)</u>	<u>Bioconcentration factor (BCF)</u>
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	>20	N/Av

**Mobility in soil** : No data is available on the product itself.

**Other Adverse Environmental effects** : No data is available on the product itself.

### SECTION 13. DISPOSAL CONSIDERATIONS

**Handling for Disposal** : Handle waste according to recommendations in Section 7. Empty containers may contain hazardous residues.

**Methods of Disposal** : Dispose in accordance with all applicable federal, state, provincial and local regulations.

**RCRA** : If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.



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### SECTION 14. TRANSPORT INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
TDG	None	Not regulated.	not regulated	none	
<b>TDG Additional information</b>	None.				
49CFR/DOT	None	Not regulated.	Not regulated	none	
<b>49CFR/DOT Additional information</b>	None.				
ICAO/IATA	None	Not regulated.	Not regulated	none	
<b>ICAO/IATA Additional information</b>	None.				

**Special precautions for user** : Appropriate advice on safety must accompany the package.

**Environmental hazards** : This product does not meet the criteria for an environmentally hazardous mixture, according to the IMDG Code. See ECOLOGICAL INFORMATION, Section 12.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
 : Not applicable.

### SECTION 15 - REGULATORY INFORMATION

**US Federal Information:**

Components listed below are present on the following U.S. Federal chemical lists:

<u>Ingredients</u>	CAS #	TSCA Inventory	CERCLA Reportable Quantity(RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	de minimus Concentration
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	Yes	N/Ap	N/Ap	No	N/Ap

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes: None. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

**US State Right to Know Laws:**

The following chemicals are specifically listed by individual States:



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Ingredients	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	No	N/Ap	No	No	No	No	No	No

**Canadian Information:**

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

WHMIS information: Refer to Section 2 for a WHMIS Classification for this product.

**International Information:**

Components listed below are present on the following International Inventory list:

Ingredients	CAS #	European EINECS	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	265-155-0	Present	Present	(9)-1689	KE-12543	Present	Not listed

### SECTION 16. OTHER INFORMATION

**Legend**

- : ACGIH: American Conference of Governmental Industrial Hygienists
- AICS: Australian Inventory of Chemical Substances
- CAS: Chemical Abstract Services
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
- CFR: Code of Federal Regulations
- DOT: Department of Transportation
- EINECS: European Inventory of Existing Commercial chemical Substances
- ENCS: Existing and New Chemical Substances
- EPA: Environmental Protection Agency
- HMIS: Hazardous Materials Identification System
- HSDB: Hazardous Substances Data Bank
- IARC: International Agency for Research on Cancer
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- IECSC: Inventory of Existing Chemical Substances
- Inh: Inhalation
- IOC: Inventory of Chemicals
- KECI: Korean Existing Chemicals Inventory
- KECL: Korean Existing Chemicals List
- LC: Lethal Concentration
- LD: Lethal Dose
- MSHA: Mine Safety and Health Administration
- N/Ap: Not Applicable
- N/Av: Not Available
- NFPA: National Fire Protection Association
- NIOSH: National Institute of Occupational Safety and Health
- NTP: National Toxicology Program
- OSHA: Occupational Safety and Health Administration
- PEL: Permissible exposure limit





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PICCS: Philippine Inventory of Chemicals and Chemical Substances  
 RCRA: Resource Conservation and Recovery Act  
 RTECS: Registry of Toxic Effects of Chemical Substances  
 SARA: Superfund Amendments and Reauthorization Act  
 STEL: Short Term Exposure Limit  
 TDG: Canadian Transportation of Dangerous Goods Act & Regulations  
 TLV: Threshold Limit Values  
 TWA: Time Weighted Average  
 WHMIS: Workplace Hazardous Materials Identification System

- References** :
1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2016
  2. International Agency for Research on Cancer Monographs, searched 2017
  3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, 2017(Chempendium, HSDB and RTECs).
  4. Material Safety Data Sheets from manufacturer.
  5. US EPA Title III List of Lists - 2017 version.
  6. California Proposition 65 List - 2017 version.
  7. OECD - The Global Portal to Information on Chemical Substances - eChemPortal,2017.

**Preparation Date (mm/dd/yyyy)**

: 02/21/2015

**Reviewed Date SDS (dd/mm/yyyy)**

: 06/02/2019

**Revision No.**

: 2

**Revision Information**

: All sections modified.

**Other special considerations for handling**

:

**HMIS Rating**

: \* - Chronic hazard 0 - Minimal 1 - Slight 2 - Moderate 3 - Serious 4 - Severe  
 Health: 0 Flammability: 1 Reactivity: 0

**NFPA Rating**

0 - Minimal 1 - Slight 2 - Moderate 3 - Serious 4 - Severe  
 : Health: 0 Flammability: 1 Instability: 0 Special Hazards: None.

<p><b>Prepared for:</b>          Parker Hannifin Corporation - Sporlan Division          206 Lange Drive          Washington, MO 63090 U.S.A.          Telephone: (636) 239-1111          Direct all enquiries to: Parker Hannifin Corp. - Sporlan Division.</p>	
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