

# SYF 1770 SYNTHETIC REFRIGERATION POLYOL ESTER [POE] COMPRESSOR FLUID

## Product Description

SYF 1770 is fully synthetic lubricants (POE) developed specifically for Refrigeration compressors using HCFC (R22) & HFC – 134A, R-134a etc. as Refrigerant. They are specially formulated Polyol Esters lubricants for severe service conditions that are beyond the capacities of conventional mineral oils, they improve the performance and efficiency of standard refrigeration systems compared to conventional oils.

Polyol Ester [POE] base lubricants have miscibility with HFC, refrigerants such as HFC – 134a, similar to that of mineral oils with CFC's. SYF 1770 lubricant is designed for refrigeration systems with very high reciprocating compressor temperatures. They are also suitable for very low evaporator temperatures and for screw compressor system using refrigerants such as HCFC (R22) & HFC 134A, R407A, R-407C, R-410A, R-404A, DANFOSE POE 160 SZ Compressors etc.

## Benefits

- Improved wear protection at high temperatures.
- No deposit formulation in low temperature systems.
- Fewer discharge valve deposit.
- Improved Compressor efficiency.

## Typical Properties

SYF 1770	12	22	32	35	46	55	68	100	150	170	220	320
Viscosity cSt @ 40°C, ASTM 445	12	22	32	35	46	55	68	100	150	170	220	320
Viscosity cSt @ 100°C, ASTM 445	3.9	5.6	5.9	6	9.4	10.8	12.9	17.5	23.6	24	31.8	42.3
Viscosity Index, ASTM D 2270, (min)	185	185	192	192	192	192	192	192	188	188	188	126
Pour Point, °C, ASTM D 97 (max)	-60	-57	-56	-50	-45	-40	-40	-40	-39	-39	-39	-39
Flash Point, °C, COC, ASTM D 92 (min)	>290	>290	>300	>300	>300	>300	>300	>290	>290	>290	>290	>290
Fire Point ASTM D 92 (min)	>340	>340	>350	>350	>350	>350	>350	>340	>340	>340	>340	>340
Density @ 20 °C (g/ml)	0.97	0.97	0.98	0.98	0.98	0.97	0.97	0.97	0.98	0.97	0.96	0.98
Acid Value (mgKOH/g)	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Water Content (ppm)	<15	<15	<15	<15	<15	<15	<15	<15	<15	<15	<15	<15
Dielectric strength, Kv. ASTM D 877 4	45.1	45.1	45.1	45.1	45.1	45.1	45.1	45.1	45.1	45.1	45.1	45.1

**Available Packs: 1, 5, 20, 50 and 210 Litres.**

**Shelf Life: 36 months from the date of Manufacturing**

\* All related specifications are meets or exceeds.

Due to continual product research and development, the information contained herein is subject to change without notification. Typical Properties may vary slightly. The Material Safety Data Sheet (MSDS) are available upon request through our sales office.

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## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product** SYF 1770 POE Synthetic Refrigeration Compressor Oil  
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## 2. COMPOSITION

1-Decene, Homo polymer, Hydrogenated Proprietary additives, phenyl-1-naphthylamine.

## 3. HAZARDS IDENTIFICATION

Physical hazards: not classified.

Health hazards: not classified.

**Not classifies as Hazardous**

## 4. FIRST-AID MEASURES

**RESPIRATORY SYSTEM:** Remove to fresh air and get medical attention.

**INGESTION:** Do not induce vomiting. Wash mouth out with water and obtain medical attention.

**EYES:** Rinse immediately with plenty of water for at least 10 minutes. Get Medical Attention.

**SKIN:** Remove contaminated clothing. Wash affected area with soap and water, get medical attention.

## 5. FIRE-FIGHTING METHODS

Foam, carbon dioxide or dry powder.

## 6. ACCIDENTAL RELEASE MEASURE

Contain and absorb in sand or earth. Ensure no material enters drains or water courses. Dispose of as solid waste in accordance with the relevant waste disposal regulations.

## 7. STORAGE AND HANDLING

Handling - At ambient temperatures wear gloves overalls and eye protection. The work area should be adequately ventilated. No eating drinking or smoking in the work area.

Storage - Store in a cool & dry place.

## 8. EXPOSURE CONTROL / PERSONAL PROTECTION

**Exposure Standard:**

The substance with exposure limit is: Notation 1: Exposure Standard: 2nd substance with exposure limit is: Notation 2:

### PERSONAL PROTECTION

Respiratory Protection:

Type of Cartridge (if Applicable): Eye Protection: Safety Spectacles

Hand Protection: Gloves butyl or nitrile rubber

Industrial Hygiene: No eating drinking or smoking in the work area Ventilation: At room temperature handle in a well-ventilated area.

Use exhaust ventilation if exposure to flume or aerosol can occur.

### PROTECTION AGAINST FIRE AND EXPLOSION

Combustible but not readily ignited. No explosion hazard.

EC SAFETY PHRASES: Not classified as hazardous.

## 9. TYPICAL PROPERTIES

Rust Characteristics	- Pass
Flash Point °C	- 290 to 300
Viscosity @ 40 °C, mm/s <sup>2</sup>	- 12 to 320
Viscosity @ 100 °C, mm/s <sup>2</sup>	- 3.9 to 42.3

**10. STABILITY AND REACTIVITY****HAZARDOUS REACTIONS****Comments**

HAZARDOUS DECOMPOSITION PRODUCTS Thermal decomposition produces noxious fumes.

**11. TOXICOLOGICAL INFORMATION**

LD50 Acute Oral Toxicity: > 5000:mg/Kg:Rat LC50 Acute Inhalation: :mg/1

Eye Irritation: No: Rabbit Skin Irritation: No.: Rabbit Sensation: Further Information:

**12. ECOLOGICAL INFORMATION**

LC50 (96 Hour): mg/1 EC50 (24 Hour): mg/1

Biodegradability (Coupled units):

**13. DISPOSAL CONSIDERATIONS**

Solid material should be incinerated. Material absorbed on sand should be disposed of as solid waste.

**14. TRANSPORT INFORMATION**

IMDG No.: Not classified

Packing Groups: IATA-DGR Class No.: Not classified TREMCARD: Not classified

RID/ADR Class No.: Not classified Other Information

**15. REGULATORY INFORMATION**

Classification and labeling according to EC Directives 67/548

Not classified as hazardous. EC Risk Phrases

Not classified as hazardous. Other Hazardous

EC Safety Phrases

Not classified as hazardous

**16. OTHER INFORMATION: PRODUCT SAFETY**

For safety reasons, it is IMPERATIVE that customer: - Ensure that all those within their control who use the products are supplied with all relevant information contained within the Material Safety Data Sheet and Technical Bulletin concerning the applications for which the product is designed and any instructions or warning.

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