

# SUNISO™

WORLD-LEADING REFRIGERATION FLUIDS



# RIGHT FROM THE START.



In 1933, Suniso® set the standard in refrigeration fluids. Specially formulated to provide exceptional stability, maximize service life and deliver trouble-free performance, there's a reason why Suniso has been the world's leading refrigeration fluids brand for more than 90 years.

Recognized globally and trusted by original equipment manufacturers (OEMs) and end users alike, the Suniso product range has evolved to match the requirements of modern refrigeration systems and changes in lubricating base oil technology.

Petro-Canada Lubricants is proud to exclusively market and distribute Suniso products with an unwavering commitment to quality, consistency and availability.

Let's continue building on the Suniso legacy—together.



**In 1933,** 

the Suniso brand is launched, setting the standard in refrigeration fluids.

**In 1968,** 

Suniso GS is launched, marking a pivotal milestone as the new “Grade Standard” for the industry.

**Today,** 

Suniso GS and SL products are marketed and distributed exclusively by Petro-Canada Lubricants, giving you access to decades of specialized lubricants expertise, a reliable global supply chain and a commitment to your refrigeration fluid needs unlike any other.

# SUNISO™ SL

## Synthetic Refrigeration Fluids

### Introduction


**Suniso® SL** lubricants are high-performance, fully synthetic refrigeration fluids formulated for optimal performance of compressors using HFC refrigerants. Manufactured with specially engineered polyol esters (POE), Suniso SL fluids ensure superior miscibility and efficient oil return throughout the system, from the evaporator to the compressor. In addition, Suniso SL fluids retain viscosity very well with the refrigerant dissolved, offering maximum protection to compressor bearings. Suniso SL fluids deliver exceptional thermal stability, making them suitable for applications ranging from low temperature refrigeration systems to high temperature heat pumps.

### Applications

**Suniso SL** lubricants are recommended for use in refrigeration, air-conditioning and heat pump systems utilizing ozone-friendly, chlorine-free refrigerants. Compatible with all HFC refrigerants, Suniso SL fluids exhibit exceptional miscibility even at extremely low temperatures. They are suitable for a wide range of compressor types, including reciprocating, screw, centrifugal and scroll compressors found in applications such as petrochemical, cold storage, trucking, supermarkets and home air-conditioning systems.



### Features & Benefits:

-  **Miscibility with HFC refrigerants**
-  **Optimal viscosity retention**
-  **High thermal stability**
-  **DIN 51503 KD  
ISO 6743-3 ISO-L-DRD**

### Compatibility

**All HFC refrigerants such as**  
R-125, R-134a, R-143a, R-152a,  
R-404A, R-407C, R-410A, R-507A

### Pack Sizes



1 LITRE



4 LITRES



20 LITRES



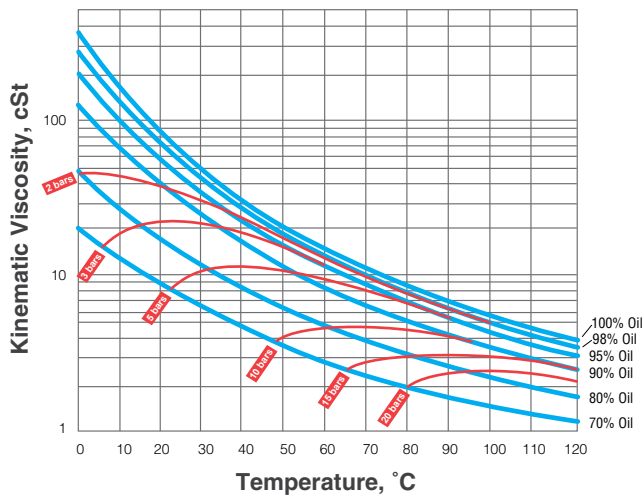
205 LITRES

# Typical Performance Data

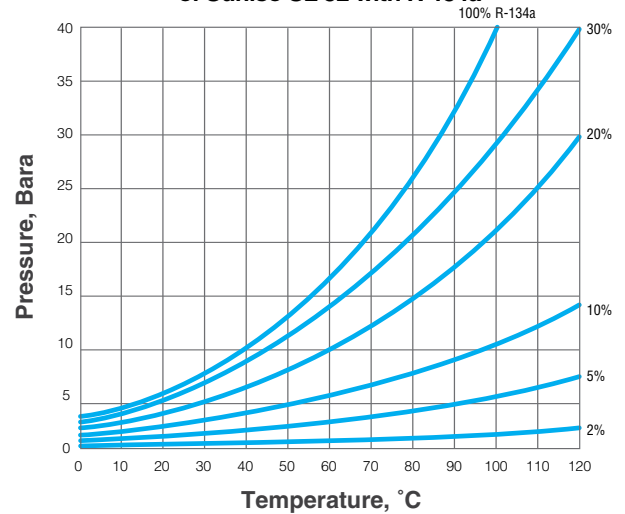
Property	ASTM Method	SL 22	SL 32	SL 46	SL 68	SL 100	SL 170	SL 220
Density @ 15°C, kg/L	D4052	0.993	0.993	0.981	0.973	0.966	0.969	0.966
Viscosity @ 40°C, cSt	D445	23.5	32.0	46.1	65.0	100.0	167.8	217.0
Viscosity @ 100°C, cSt	D445	4.4	5.6	6.9	8.3	10.9	15.3	17.9
Moisture, ppm	D6304	<100	<100	<100	<100	<100	<100	<100
Flash Point, °C / °F	D92	252 / 486	250 / 482	253 / 487	255 / 491	270 / 518	279 / 534	255 / 491
Pour Point, °C / °F	D5950	-57 / -71	-54 / -65	-48 / -54	-36 / -33	-33 / -27	-27 / -17	-30 / -22
Acid Value, mg KOH/gm	D974 (Modified)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

The values quoted above are typical of normal production. They do not constitute a specification.

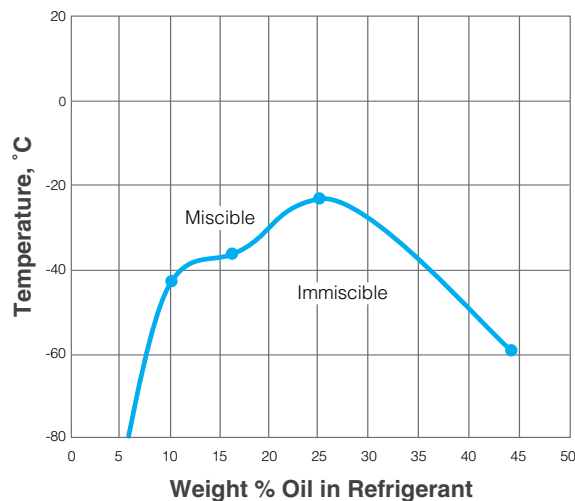
**Viscosity vs. Temperature of Suniso SL 32 with R-134a**



**Dilution Chart of Suniso SL 32 with R-134a**



**Miscibility Chart of Suniso SL 32 with R-134a**



# SUNISO™ GS

## Mineral Refrigeration Fluids

### Introduction

**Suniso® GS** lubricants are premium quality, highly-refined mineral refrigeration fluids designed to lubricate refrigeration and air conditioning compressors using CFC and HCFC refrigerants. Suniso GS fluids are known for their low wax content, low pour point and high dielectric strength. For over 50 years, Suniso GS fluids have helped to ensure trouble-free operation and maximum service life with excellent chemical and thermal stability.

### Applications

**Suniso GS** lubricants are recommended for use in consumer and commercial refrigeration and air-conditioning systems charged with traditional and natural refrigerants. Suniso GS fluids are ideally suited for low-temperature systems where evaporator temperatures are as low as  $-42^{\circ}\text{C}/44^{\circ}\text{F}$ . Suniso GS fluids are designed for use with CFC and HCFC refrigerants. They are also suitable for use with natural-type refrigerants including ammonia, isobutane and propane.



### Features & Benefits:

-  **Low wax content and low pour point**
-  **High dielectric strength/ good electrical insulating properties**
-  **Excellent chemical stability**
-  **High thermal stability**

### Compatibility

**All CFC refrigerants such as** R-11, R-12, R-13, R-113, R-114, R-115

**All HCFC refrigerants such as** R-21, R-22, R-123, R-124, R-141b, R-142b, R-502

**Ammonia:** R-717

**Isobutane:** R-600a

**Propane:** R-290

### Pack Sizes



4 LITRES



20 LITRES



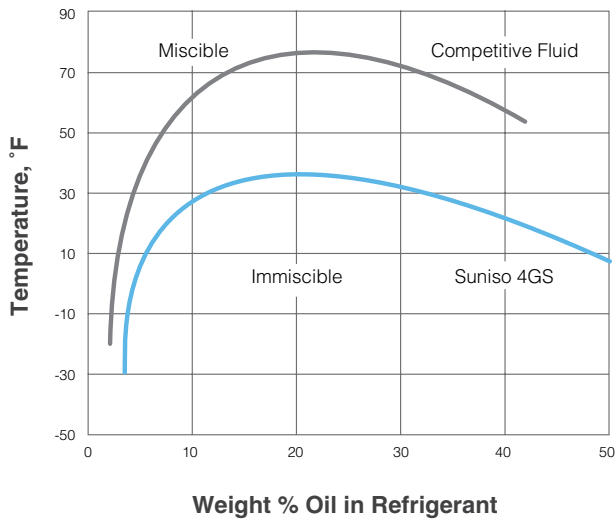
205 LITRES

# Typical Performance Data

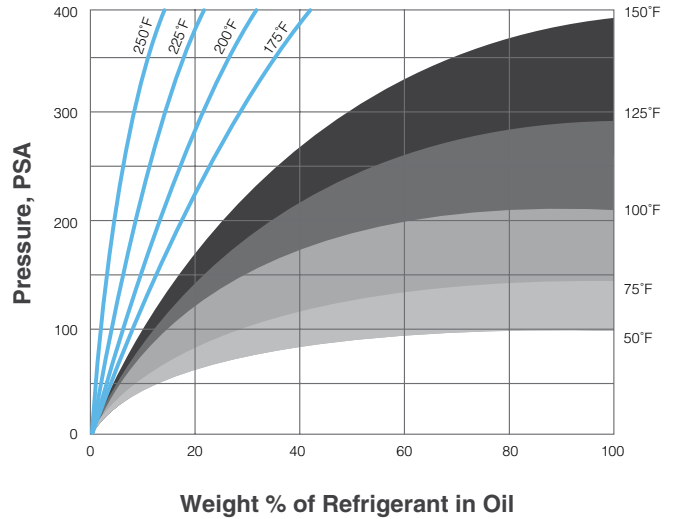
Property	ASTM Method	3GS	4GS	5GS
Density @ 15°C, kg/L	D4052	0.910	0.916	0.920
Viscosity @ 40°C, cSt	D445	30	55	100
Viscosity @ 100°C, cSt	D445	4.4	5.9	8.4
Flash Point, °C / °F	D92	178 / 352	184 / 364	213 / 415
Pour Point, °C / °F	D97	-48 / -54	-42 / -44	-33 / -27
Floc Point, °C / °F	ASHRAE 86	-58 / -72	-54 / -66	-45 / -49
Dielectric Strength, kV	D877	37	40	38

The values quoted above are typical of normal production. They do not constitute a specification.

**Miscibility Chart of Suniso 4GS with R-22**



**Solubility of R-22 in Suniso 4GS as a Function of Temperature and Pressure**



## OEM Approvals for Suniso GS

AMERICOLD

ARCELIK (BEKO)

ASPERA

BORG WARNER (YORK)

BRISTOL COMPRESSORS

CARLYLE (UTC)

CARRIER (UTC)

COPELAND

DAEWOO

DANFOSS

DORIN

ELECTROLUX

EMBRACO

EMERSON QUIET-KOOL

FORD

FRICK

FRIGIDAIRE

GENERAL ELECTRIC

GOLDSTAR

HARTFORD COMPRESSORS  
(DUNHAM-BUSH)

HEIL QUAKER (WHIRLPOOL)

HITACHI

LAMANA

LENNOX

MATSUSHITA (PANASONIC)

MAYTAG

MURRAY

NECCHI

SAMSUNG

SANDEN

SANYO

TECUMSEH

THERMOKING

TOSHIBA

TRANE

WHIRLPOOL

YORK INTERNATIONAL

ZANUSSI

# SUNISO™

WORLD-LEADING REFRIGERATION FLUIDS

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