



## Introduction

**Suniso<sup>®</sup> SL** oils are high-performance, synthetic refrigeration lubricants formulated for optimal performance of compressors using HFC and HFC/HFO refrigerant blends. Manufactured with specially engineered polyol esters (POE), Suniso SL lubricants ensure superior miscibility and efficient oil return throughout the system, from the evaporator to the compressor. In addition, Suniso SL lubricants retain viscosity very well with the refrigerant dissolved, offering maximum protection to compressor bearings. Suniso SL lubricants 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 most HFC refrigerants (e.g. R-125, R-134a, R-143a, R-152a, R-404A, R-407C, R-410A, R-507A) and HFC/HFO refrigerant blends (e.g. R-448A, R-449A, R-449C, R-452A, R-452B, R-454A, R-454B, R-454C), Suniso SL lubricants 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 AND HFC/HFO REFRIGERANT BLENDS

Promotes efficient oil return from evaporator to compressor, thereby preventing oil buildup in the evaporator and other system components, minimizing the risk of reduced system efficiency and damage.



### OPTIMAL VISCOSITY RETENTION

Balanced formulation avoids excessive viscosity reduction due to the dilution of the lubricant by the refrigerant. This helps maintain a protective lubricating film across a wide temperature range, reducing friction and preventing metal-to-metal contact.



### HIGH THERMAL STABILITY

Suitable for a wide range of applications ranging from low temperature refrigeration systems to high temperature heat pumps.



### SPECIFICATIONS

DIN 51503 KD  
ISO 6743-3 ISO-L-DRD

## 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.



Committed to the disciplined operation of our business.

**CERTIFIED**  
ISO 9001: 2015  
ISO 14001: 2015  
IAFT 16949: 2016



# SUNISO™

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