



Refrigeration oil

SUNISO® 4SA/4HT

SUNISO 4SA was developed specifically for the **R717** with the aim to protect refrigeration compressors at the minimal operating cost. Highly refined naphthenic mineral oils, widely trusted and used by the global professionals.

SUNISO 4HT is a paraffinic refrigeration oil developed for **R717** in response to users' requests for transparent color. Enhanced high-temperature durability is the advantage of 4HT.

APPLICATIONS

Refrigerating Compressors using R717 (ammonia).

- 4SA is a specially formulated naphthenic refrigeration oil optimized for **R717** system.
- 4HT is a highly refined paraffinic refrigeration oil for **R717** system and has improved high-temperature durability.

ADVANTAGES

Give your compressors high performance and safety at reasonable cost.

4SA

- Long Service Life
- Higher Wear Resistance
- Excellent Lubricity
- Best Cost performance

4HT

- Excellent Thermal Stability
- Less Carbon Deposits
- Excellent Lubricity

SPECIFICATIONS

Approvals/ Recommendations/ References.

4SA GEA Grasso

Typical Properties

Analysis	Unit	Method	4SA	4HT	For comparison	
					3GS	4GS
ISO Viscosity Grade			56	56	32	56
Density at 15°C	g/cm ³	ASTM D4052	0.902	0.855	0.909	0.915
Viscosity (40 °C)	mm ² /s	ASTM D445	53.9	54.3	29.5	54.9
Viscosity (100 °C)	mm ² /s	ASTM D455	6.7	8.2	4.3	6.0
Pour point	°C	ASTM D97	-40.0	-35.0	-40.0	-35.0
Flash point (COC)	°C	ASTM D92	198	240	178	188

Above characteristics are mean values given as an information.

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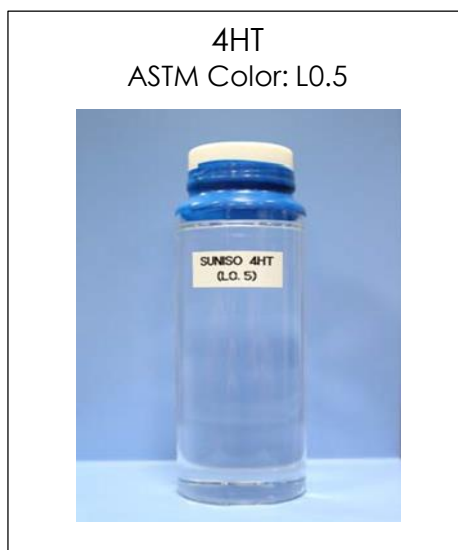


Application table

	ASHRAE	Evaporator Temp. From	Compressor Type						
			Piston			Screw			
NH3 (ammonia)	R717	-30 °C	4SA	4HT	3GS	4GS	4SA	4HT	4GS
		-40 °C	4SA		3GS		4SA		3GS
		-50 °C			3GS		4SA		3GS

For equipment under warranty, please refer to equipment builder recommendations.

In changing the technology or brand of refrigeration oil, flushing the system is recommended to minimize contamination with the old technology or brand.



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