

RENISO TRITON SE/SEZ

Synthetic refrigeration oils based on polyol esters (POE) for HFC/FC refrigerants

Description

The refrigeration oils of the RENISO TRITON SE/SEZ series are based on synthetic esters that were especially developed for use with chlorine-free, fluorinated hydrocarbons (HFC/FC). In contrast to conventional refrigeration oils, these are miscible and compatible with polar HFC/FC.

Application

The RENISO TRITON SE/SEZ series is outstandingly suited for all refrigeration circuits, in which chlorine-free HFC/FC refrigerants, e.g. R134a, R404A or R410A are used. Depending on the viscosity, RENISO TRITON SE/SEZ refrigeration oils are recommended for hermetical, semi-hermetical and open piston compressors and for screw-type and turbo-compressors. RENISO TRITON SEZ 22 is especially suitable for deep-freeze systems operating with R23.

RENISO TRITON SE/SEZ products are also suitable for hydrocarbon refrigerants (e.g. propane, polypropylene, isobutane) and R22. In such cases please contact FUCHS prior to the usage.

Specifications

RENISO TRITON SE/SEZ lubricants fulfill and exceed the requirements acc. to DIN 51503-1, Groups KC, KD, KE.

RENISO TRITON SEZ 32 - NSF H2 registration:
registration number 146752

RENISO TRITON SE 55 – NSF H2 registration:
registration number 146754

Advantages/ Benefits

- **Special synthetic polyolester**
- **Stable lubrication film even at high temperatures, outstanding lubricity**
- **Excellent solubility with HFC and FC refrigerants**
- **Very high thermal and chemical stability in the presence of fluorinated refrigerants**
- **Good viscosity-temperature behavior**
- **Excellent cold temperature flowability**
- **Secure oil return from the system, good heat transfer**
- **Good compatibility with elastomers and materials normally used in refrigeration circuits**
- **Readily biodegradable (ISO VG 32 and ISO VG 55)**
- **Approved by leading compressor manufacturers**
- **Ultra-dried**

Note

Because of their chemical structure, ester-based oils tend to absorb water. For this reason, RENISO TRITON SE/SEZ should be in contact with ambient air only for a short time. When opened, the content should be used up in short time.

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Typical technical data:

		RENISO TRITON				
Product name		SEZ 22	SEZ 32	SE 55	SEZ 68	
Properties	Unit					Test method
Density at 15 °C	kg/m ³	1003	1004	1009	970	DIN 51757
Flash point	°C	248	250	286	258	DIN ISO 2592
Color	-	0	0.5	1.0	0.5	DIN ISO 2049
Kinematic viscosity at 40 °C	mm ² /s	20	32	55	68	DIN EN ISO 3104
at 100 °C	mm ² /s	4.4	6.1	8.8	8.9	
Viscosity index	-	133	141	137	104	DIN ISO 2909
Pourpoint	°C	-57	-57	-48	-39	DIN ISO 3016
Neutralization number	mgKOH/g	0.03	0.03	0.03	0.03	DIN 51558-1
Water content	mg/kg	< 50	< 50	< 50	< 50	DIN 51777-2

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Typical technical data:

		RENISO TRITON				
Product name		SEZ 80	SEZ 100	SE 170	SE 220	
Properties	Unit					Test method
Density at 15 °C	kg/m ³	992	970	972	976	DIN 51757
Flash point	°C	251	266	260	294	DIN ISO 2592
Color	-	0.5	1.0	0.5	0.5	DIN ISO 2049
Kinematic viscosity at 40 °C	mm ² /s	82	100	173	220	DIN EN ISO 3104
at 100 °C	mm ² /s	10.4	11.4	17.1	19.0	
Viscosity index	-	115	100	106	98	DIN ISO 2909
Pourpoint	°C	-39	-30	-27	-27	DIN ISO 3016
Neutralization number	mgKOH/g	0.03	0.03	0.03	0.03	DIN 51558-1
Water content	mg/kg	< 50	< 50	< 50	< 50	DIN 51777-2

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Recommendations:

Compressor Units	RENISO TRITON							
	SEZ 22	SEZ 32	SE 55	SEZ 68	SEZ 80	SEZ 100	SE 170	SE 220
<u>R134a</u>								
Refrigerators	1	2	4	4	4	4	4	4
Household refrigerators	1	1	3	4	4	4	4	4
Semi-hermetical and hermetical compressors	2	1	2	2	3	3	4	4
Open compressors	3	1	1	1	2	2	4	4
Screw compressors	3	3	3	3	3	2	1	1
Turbocompressors	4	4	1	1	2	2	4	4
A/C systems for pass. vehicles	4	4	1	1	2	2	4	4
<u>R23</u>								
Piston and screw-type compressors	1	1	4	4	4	4	4	4

Rating: 1 very good 4 not recommended