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, poly-propylene, 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 manufac-turers**
- **Ultra-dried**



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ISO/TS 16949:2009
DIN EN ISO 14001:2004
BS OHSAS 18001:2007
REG.NR. 2476

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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:

Product name		**SEZ 22**	**SEZ 32**	**SE 55**	**SEZ 68**	
Properties	**Unit**					**Test method**
Density at 15 °C	kg/m³	1001	1004	1009	970	DIN 51757
Flash point	°C	228	250	286	258	DIN ISO 2592
Color	-	0.5	1.0	1.0	0.5	DIN ISO 2049
Kinematic viscosity at 40 °C at 100 °C	 mm^2/s mm^2/s	 20 4.4	 32 6.1	 55 8.8	 68 8.8	DIN EN ISO 3104
Viscosity index	-	134	140	137	125	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:

Product name		**SEZ 80**	**SEZ 100**	**SE 170**	**SE 220**	
Properties	**Unit**					**Test method**
Density at 15 °C	kg/m³	992	970	972	976	DIN 51757
Flash point	°C	251	266	260	285	DIN ISO 2592
Color	-	0.5	1.0	1.0	0.5	DIN ISO 2049
Kinematic viscosity at 40 °C at 100 °C	 mm^2/s mm^2/s	 82 10.4	 100 11.4	 173 17.6	 220 20.0	DIN EN ISO 3104
Viscosity index	-	115	100	111	105	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	SEZ 22	SEZ 32	SE 55	SEZ 68	SEZ 80	SEZ 100	SE 170	SE 220
R134a								
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
R23								
Piston and screw-type compressors	1	1	4	4	4	4	4	4

Rating: 1 very good 4 not recommended

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The information contained in this product information is based on the experience and know-how of FUCHS SCHMIERSTOFFE GMBH in the development and manufacturing of lubricants and represents the current state-of-the-art. The performance of our products can be influenced by a series of factors, especially the specific use, the method of application, the operational environment, component pre-treatment, possible external contamination, etc. For this reason, universally-valid statements about the function of our products are not possible. The information given in this product information represents general, non-binding guidelines. No warranty expressed or implied is given concerning the properties of the product or its suitability for any given application.

We therefore recommend that you consult a FUCHS SCHMIERSTOFFE GMBH application engineer to discuss application conditions and the performance criteria of the products before the product is used. It is the responsibility of the user to test the functional suitability of the product and to use it with the corresponding care.

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