

ULTRACHEM® R-POE SERIES

ADVANCED SYNTHETIC POE-REFRIGERANTS COMPRESSOR LUBRICANTS

PRODUCT CODES: RPOE 22, 32, 46, 68, 100, 150, 220

PRODUCT OVERVIEW

Ultrachem R-POE Series are fully synthetic lubricants based on high performance polyolester (POE) technology. This series has been designed specifically for use in demanding refrigeration systems and is compatible with both HCFC and HFC refrigerants including R-134a. These lubricants are available in a range of ISO 22 to ISO 220. These oils are formulated with proprietary synthesized Polyol Esters (POEs) and a unique additive system to provide outstanding lubricity, wear protection, chemical and thermal stability, and hydrolytic stability. This series is a high performance fully synthetic lubricants specifically designed for the lubrication of refrigeration compressors and systems using ozone friendly synthetic HFC refrigerants as well as recently developed HFO refrigerants and HFO/HFC blends with lower Global Warming Potential than HFC's, including A1 and A2L refrigerants as per ASHRAE 34/ISO 817 safety classification.

These are miscible with HFC, HFO and HFO/HFC refrigerants and have well-defined viscosity / temperature/pressure relationships with a wide range of those refrigerants. Performance of this product is well proven in a broad range of refrigeration and air conditioning systems and are used by many major compressor and system builders around the world. These oils are recommended for use in HVAC (Heating, Ventilation, Air Conditioning), Commercial and Industrial Refrigeration.

APPLICATION DETAIL

- Refrigeration Compressors
- Air Conditioning Compressors

KEY BENEFITS

- Compatible with hydrochlorofluorocarbon (HCFC) & hydrofluorocarbon (HFC) refrigerants
- Excellent protection against wear of compressors to extend life
- Less smoke produced Improved operational safety
- Long service life reduces replacement costs, minimizes downtime, and increases productivity
- Keeps chains clean and free of carbon build-up with resulting reduced maintenance costs and increased productivity
- Greater biodegradability than mineral oils and alkylbenzene based oils.
- Low volatility prevents viscosity build-up and reduces oil consumption
- Suitable for use with R-134a, R-407C, and R-410A
- Reduced formation of lacquer and deposit reduces shaft seal leakage and extends filter life
- Outstanding seal life reduces leakage, oil consumption and contamination ingress reduce maintenance costs

QUICK POINTS...

Name: *ULTRACHEM R-POE SERIES*

ISO Grade: *22 & 220*

Base: *POE*

Additive System: *R&O*

Color: *PALE STRAW*

Food Grade: *NO*

Main Application: *REFRIGERATION*

TYPICAL CHARACTERISTICS**

PRODUCT DATA	ASTM METHOD	R-POE 22	R-POE 32	R-POE 46	R-POE 68	R-POE 100	R-POE 150	R-POE 220
ISO Grade	D2422	22	32	46	68	100	150	220
Viscosity, 40 °C	D445	23.5	31.6	47.1	64.9	95.7	148.0	221.3
Viscosity, 100 °C	D445	4.7	5.6	7.0	8.3	10.6	14.1	18.1
Viscosity Index	D2270	120	115	105	96	93	91	88
Flash Point, °C/°F	D92	252/486	250/482	258/496	256/493	271/520	279/534	254/489
Pour Point, °C/°F	D97	-59/-74	-55/-67	-43/-45	-39/-38	-34/-29	-27/-17	-28/-18
Total Acid Number, mg KOH/g	D974	0.02	0.02	0.03	0.02	0.02	0.01	0.03
Moisture, ppm (low temp. miscibility, 10% oil, °C)	D1533	32	22	33	18	20	25	27
R-134 A		<-50	<-50	<-50	<-35	<-35	<-50	<-50
R-407 C		<-35	<-35	<-35	<-35	<-18		
R-410 A		<-40	<-40	<-40	<-30	<-15		
Refractive Index @ 20 °C	D1218	1.45	1.45	1.45	1.45	1.45	1.45	1.45
Density	D4052	8.35	8.21	8.14	8.07	8.07	8.06	8.02
Specific Gravity	D1298	1.00	0.99	0.97	0.97	0.97	0.96	0.96

**Characteristics are typical of production. Slight variations in the actual data may occur which will not affect performance.

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SPECIFICATIONS

- Meets DIN 51503 KD

COMPATIBILITY NOTES

- Not Compatible with mineral oils and most other hydrocarbons
- Compatible with most process gases
- Compatible with most common seal materials, plastics, and paints
- Not compatible with polyalkylene glycol (PAG) lubricants

SHELF LIFE

- Standard shelf life of (5) years from DOM applies to this product
- Shelf life may be extended and/or recertified upon individual case – please contact your Ultrachem, Inc. representative

HEALTH & REGULATORY STATEMENTS

- Classified as non-hazardous per OSHA GHS
- TSE/BSE compliant: product does not contain any materials of animal origin or derivatives
- FALCPA compliant: product does not contain any allergens
- RoHS compliant: product does not contain any EU RoHS substances
- REACH compliant: product does not contain any SVHC substances
- Guidelines on safety and storage may be found on the associated Safety Data Sheet (SDS@ultracheminc.com)

PACKAGING AVAILABILITY

- 5 gallon pail (18.9 L)
- 55 gallon drum (208.2 L)

Please contact your Ultrachem, Inc. representative for detailed information not covered in this data sheet.



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We therefore recommend you consult a FUCHS Lubricants Co. 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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