

Gargoyle Arctic SHC 200 Series

Synthetic Refrigeration Oils

Product Description

Gargoyle Arctic SHC 200 Series are fully synthetic, supreme performance lubricants, specifically designed for use in refrigeration compressors and heat pumps used in marine, commercial and industrial applications. They are formulated from wax-free, synthesized hydrocarbon poly-alphaolefin (PAO) fluids, which have outstanding resistance to thermal/oxidative degradation. With their naturally high shear stable viscosity index and low temperature fluidity, they are able to perform in severe service conditions that are beyond the capabilities of conventional mineral oils. Their solubility and miscibility with refrigerants is low, resulting in higher film thickness in the presence of refrigerants under pressure and reduced shaft seal leakage. Their stability and low volatility eliminates "light end stripping" which can occur with conventional mineral oils. Gargoyle Arctic SHC 200 Series lubricants help reduce frictional losses and improve machine operating efficiency.

Gargoyle Arctic SHC 226 and 230 lubricants are recommended for the lubrication of refrigeration compressors operating at very high temperatures, and for systems with very low evaporator temperatures. They are suitable for compressor systems using refrigerants such as ammonia, carbon dioxide and HCFCs such as R-22. They have also enjoyed excellent experience with CFC refrigerants such as R-12. They are compatible with all refrigerants except sulfur dioxide and have been particularly successful with systems using ammonia as the refrigerant. Gargoyle Arctic SHC 226 and 230 are fully miscible with conventional

mineral oils, but admixture may detract from the superior performance properties of the Mobil synthetic product.

Features & Benefits

The Mobil SHC brand of lubricants are recognised and appreciated around the world for their innovation and outstanding performance. These molecular design PAO synthetic products, pioneered by ExxonMobil research scientists, symbolize the continuing commitment to using advanced technology to provide outstanding lubricant products.

Work with equipment builders has helped confirm the results from ExxonMobil laboratory tests showing the exceptional performance of the Gargoyle Arctic SHC 226 and 230 lubricants. Not least among the benefits shown in work with OEMs is the superb low temperature capability providing excellent fluidity at low temperatures, as well as the resistance to viscosity loss due to refrigerant absorption under pressure providing excellent bearing film thickness and shaft sealing properties.

By its nature, the PAO base oil used in Gargoyle Arctic SHC 200 Series oils provides exceptional thermal/oxidative resistance critical for high temperature applications. The narrow molecular weight distribution of the PAO basestocks also minimizes volatility and reduces oil carryover.

Gargoyle Arctic SHC 226 and 230 oils offer the following features and potential benefits:

Features	Advantages and Potential Benefits
High oil film thickness in the presence of refrigerant	Improved compressor antiwear protection for extended compressor life as well as better shaft sealing, reduced bearing fatigue and less unscheduled downtime
Excellent thermal/oxidative and chemical stability	Long oil life, reduced drain intervals and less routine maintenance Reduced lacquer and deposit formation on discharge valves, longer filter life and reduced shaft seal leakage
Low volatility	Avoids viscosity build-up, reduced oil consumption

continued

Features (continued)

High Viscosity Index and wax-free

Low traction coefficient

Seal compatibility

Advantages and Potential Benefits

Excellent low temperature fluidity, no waxy deposits and improved evaporator efficiency

Potential for improved system efficiency and reduced power consumption

Long seal life, reduced shaft seal leakage

Applications

Gargoyle Arctic SHC 200 Series are fully synthetic lubricants specifically designed for use in refrigeration compressors and heat pumps. They are recommended for use with the following refrigerants: Ammonia, R-22 and other HCFCs, and Carbon Dioxide. Gargoyle Arctic SHC 226 and 230 refrigeration compressor lubricants are designed for refrigeration systems with very high reciprocating compressor temperatures. They are also suitable for very low evaporator temperatures and for screw compressor systems using refrigerants such as R12.

While Gargoyle Arctic SHC 226 and 230 are compatible with mineral oil products, a mixture will detract from their performance. Systems should be thoroughly flushed and cleaned when replacing a mineral product with a Gargoyle Arctic SHC 200 Series product. The lubricant can be continued in service until it becomes convenient to change the system.

Specifications & Approvals

Gargoyle Arctic SHC 200 Series oils meet or exceed the following industry and builder specifications:

- USDA H1 Quality Level

Health & Safety

Based on available information, this product is not expected to produce adverse effects on health when used for the intended application, following the recommendations provided in the Material Safety Data Sheet (MSDS). MSDSs are available upon request through your sales contract office, or via the Internet on <http://www.exxonmobil.com>. This product should not be used for purposes other than its intended use. If disposing of used product, take care to protect the environment.

Typical Properties

Gargoyle Arctic SHC	226	230
ISO Viscosity Grade	68	220
Viscosity, ASTM D 445		
cSt @ 40°C	68	220
cSt @ 100°C	10.4	25.0
Viscosity Index, ASTM D 2270	145	149
Pour Point, °C, ASTM D 97	-45	-39
Flash Point, °C, ASTM D 92	250	260
Specific Gravity 15°C/15°C ASTM D 1298	0.83	0.85
Foam Test, ASTM D 892, Seq I, Tendency/Stability, ml/ml	10/0	10/0
Copper Strip Corrosion, ASTM D 130, 3 hrs @ 100°C	1A	1A

Due to continual product research and development, the information contained herein is subject to change without notification. Typical properties may vary slightly.

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