GARGOYLE ARCTIC SHC 200 SERIES

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 polyalphaolefin (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 226E 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 226E and 230 are fully miscible with conventional mineral oils, but admixture may detract from the superior performance properties of the Mobil synthetic product.

PROPERTIES & 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 ExxxonMobil laboratory tests showing the exceptional performance of the Gargoyle Arctic SHC 226E 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 thicknes 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 base stocks also minimizes volatility and reduces oil carryover.

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

Properties	Potential advantages and benefits
High oil film thickness in the compressor life as presence of refrigerant.	Improved compressor antiwear protection for extended 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.
High Viscosity Index and wax-free.	Excellent low temperature fluidity, no waxy deposits and improved evaporator efficiency.
Low traction coefficient.	Potential for improved system efficiency and reduced power consumption.
Seal compatibility.	Long seal life, reduced shaft seal leakage.

APPLICATIONS

Mobil 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 226E and 230 refrigeration compressor lubricants are designed for refrigeration systems with very high reciprocating compressor temperatures. In the case of R22 refrigerants, guidance from the supplier of the refrigeration unit must always be sought to ensure installation operation is suitable for efficient separation of the oil and refrigerant. They are also suitable for very low evaporator temperatures and for screw compressor systems using refrigerants such as R12.

While Mobil Gargoyle Arctic SHC 226E 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 Mobil Gargoyle Arctic SHC 200 Series product. The lubricant can be continued in service until it becomes convenient to change the system.

SPECIFICATIONS

GARGOYLE ARCTIC SHC 200 SERIES
USDA H1 Quality Level

TYPICAL CHARACTERISTICS

GARGOYLE ARCTIC SHC 200 SERIES	**226E**	**230**
ISO Viscosity Grade	68	220
Viscosity, ASTM D 445		
cSt @ 40ºC	68	220
cSt @ 100ºC	10.2	25.0
Viscosity Index, ASTM D 2270	136	149
Pour Point, ºC, ASTM D 97	-45	-39
Flash Point, ºC, ASTM D 92	266	260
Specific Gravity15C /15C ASMT 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 @ 100ºC	1A	1A

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).

The typical property values shown in the table are average figures given as a guide. They do not constitute a guarantee. Values may be modified without notice.