Mobil SHC Gargoyle 80 POE

Mobil Industrial , Austria

Refrigeration Oils

Product Description

Mobil SHC™ Gargoyle 80 POE is a high performance refrigeration oil designed specifically for the lubrication of refrigeration compressors using carbon dioxide (CO2, R-744) refrigerant for miscible applications. It is formulated using an innovative Polyol Ester technology (POE) to provide outstanding lubricity, wear protection, chemical and thermal stability.

Its miscibility with CO2 refrigerant and well-defined viscosity/temperature/pressure relationships ensure an appropriate film thickness even at high operating pressures and temperatures observed in piston compressors using this refrigerant technology.

With its naturally high shear stable viscosity index and low temperature fluidity, it can provide additional performance benefits in severe service conditions, including reduced shaft leakage and potential for improved evaporator efficiency.

Features and Benefits

- High oil film thickness in the presence of refrigerant helps maintain excellent shaft sealing, thus reducing bearing fatigue and unscheduled downtime.
- Appropriate miscibility and VPT relationships with carbon dioxide contribute to reduce operating oil crankcase temperature, resulting in higher in-service viscosity and therefore a thicker oil film for better lubricity and wear protection.
- Excellent wear protection contributes to potential extended compressor life.
- High Viscosity Index and excellent low temperature fluidity help improve evaporator efficiency.
- Low traction coefficient provides potential for improved system efficiency and reduced power consumption.

Applications

Application considerations: Mobil SHC Gargoyle 80 POE is hygroscopic and care must be taken to avoid moisture absorption during handling. Packages should be tightly closed when not in use, and small packaging are preferred. Product should not be transferred to plastic containers that may allow moisture ingress.

Mobil SHC Gargoyle 80 POE is recommended for refrigeration systems where carbon dioxide refrigerant is used. This includes:

- Large industrial reciprocating refrigeration compressors used in the food industry for food preparation and freezing
- Industrial applications such as food freezing and cold storage plants
- Marine refrigeration applications

Properties and Specifications

Property	
Brookfield Viscosity @ -30 C, mPa.s, ASTM D2983	23600
Density @ 15 C, kg/l, ASTM D4052	1.02
Kinematic Viscosity @ 100 C, mm2/s, ASTM D445	11.4
Kinematic Viscosity @ 40 C, mm2/s, ASTM D445	78

Property	
Pour Point, °C, ASTM D5950	-45
Viscosity Index, ASTM D2270	142
Flash Point, Closed Cup, C, ASTM D7094	285

Health and safety

Health and Safety recommendations for this product can be found on the Material Safety Data Sheet (MSDS) @ http://www.msds.exxonmobil.com/psims/psims.aspx

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