# Mobil SHC Gargoyle 80 POE

Mobil Industrial , Netherlands

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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Typical Properties are typical of those obtained with normal production tolerance and do not constitute a specification. Variations that do not affect product performance are to be expected during normal manufacture and at different blending locations. The information contained herein is subject to change without notice. All products may not be available locally. For more information, contact your local ExxonMobil contact or visit www.exxonmobil.com
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