



Mobil Gargoyle Arctic 68 NH

Mobil Industrial , Austria

Refrigeration Oil for Ammonia (R-717) application

Product Description

Mobil Gargoyle Arctic 68 NH is a high performance refrigeration oil designed specifically for the lubrication of refrigeration reciprocating and screw compressor: ammonia (NH₃, R-717). It is formulated with high quality mineral paraffinic technology providing excellent low temperature performance, low volatility and thermal stability.

Its very low miscibility with ammonia limits oil thinning and minimizes oil carry-over. Low vapour pressure reduces oil consumption and need for top-ups while prevents fractionation (viscosity increase).

Viscosity control over a wide temperature range to obtain the lowest fluidity required in the evaporator and the highest viscosity for enhanced equipment protection of the compressor.

Features and Benefits

- Low volatility, helps reducing oil consumption (fewer oil top-ups), limiting oil thinning from fractionation
- Low Brookfield viscosity contributes to good oil flow at low temperatures and good oil return from evaporator
- Surface protection for increased equipment life, reduced repair costs
- High Viscosity Index for good compressor lubrication across wide operating temperatures
- Refrigerant compatibility contributes to oil separator efficiency (very low miscibility with NH₃)

Applications

Application considerations: Mobil Gargoyle Arctic 68 NH is recommended for refrigeration systems for cylinder and bearing lubrication in conventional reciprocating and screw refrigeration compressors where ammonia refrigerant is used.

This includes:

- Large industrial reciprocating and screw 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

Typical Properties

| Viscosity | | |
|------------------------------------|------------|------|
| cSt @ 40° C | ASTM D445 | 68.6 |
| cSt @ 100° C | ASTM D445 | 9.32 |
| Viscosity Index | ASTM D2270 | 113 |
| Pour Point (°C) | ASTM D5950 | -39 |
| Flash Point (°C) | ASTM D92 | 248 |
| Density @ 15°C | ASTM D4052 | 0.86 |
| Brookfield Viscosity at -20°C (cP) | ASTM D2983 | 6020 |

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.as>

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