# Mobil Gargoyle Arctic 68 NH

Mobil Industrial , Croatia

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 compressors using ammonia ($NH_3$, 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 preventing 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 in 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.aspx

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06-2023

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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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