



Capella® A

Synthetic Ammonia Refrigeration Compressor Oil

Product Data Sheet

Premium synthetic compressor oil specifically designed for the lubrication of ammonia refrigeration compressors operating at high discharge temperatures in refrigeration systems with extremely low evaporator temperatures. Formulated from specially formulated synthetic polyalphaolefin (PAO) basefluids.

Customer benefits

Minimum downtime

Synthetic polyalphaolefin base fluid provides excellent thermal and chemical stability in the presence of ammonia, avoiding the formation of gum, varnish and sludge deposits.

Efficient, trouble-free operation

Lower oil volatility of synthetic polyalphaolefin base fluid reduces oil consumption and limits the amount of lubricant carry-over to the evaporator, giving increased heat transfer efficiency. Synthetic polyalphaolefin base fluid provides a very low pour point and less oil thickening which makes it suitable for operation at the very low temperature conditions found in modern ammonia refrigeration systems. Additive free formulation prevents production of sludge caused by ammonia soap formation.

Lower maintenance costs

Ultra high viscosity index of synthetic polyalphaolefin base fluid provides highest oil viscosity at elevated operating temperatures and maintains excellent fluid film strength for greatest protection against compressor wear.

Easier cold start-up

Ultra high viscosity index of synthetic polyalphaolefin base fluid provides lower viscosity at cold temperatures, reducing cold start-up power requirements.

Applications

- Ammonia refrigeration compressors with minimum evaporator temperatures of -60°C
 - Refrigeration and air-conditioning system compressors
 - Reciprocating and screw ammonia compressors operating at discharge temperatures exceeding 100°C
- Not recommended for use in breathing air compressors



Product specifications

PRODUCT DESCRIPTOR	
KEY PROPERTIES	
ISO Grade	68
Acid No., mg KOH/g	0.01
Flash Point, COC, °C	260
Pour Point, °C	-57
Viscosity,	
- mm ² /s @ 40°C	68.7
- mm ² /s @ 100°C	10.6
Viscosity Index	143

9907


Performance standards

- British Standard BS 2626:1992
- DIN 51503
- ABB Stal Refrigeration AB Approval
- Broedrene Gram Approval
- Sabroe Approval

Service considerations

Caltex Capella A is formulated primarily for the lubrication of ammonia refrigeration compressors and satisfies the low temperature requirements of ammonia refrigeration systems with minimum evaporator temperatures of -60°C. It is particularly suitable for reciprocating and screw compressors operating at discharge temperatures exceeding 100°C where an ISO 68 lubricant is recommended, and is recommended for use in refrigeration and air-conditioning compressors requiring lubricants with excellent low temperature characteristics.

Because Caltex Capella A is almost completely immiscible with ammonia, the oil's pour point is the best indication of the minimum evaporator operating temperature to which it may be used. The synthetic polyalphaolefin (PAO) basefluids used in the manufacture of Caltex Capella A provides an extremely low pour point, so Caltex



Capella A may be used in refrigeration systems with evaporator operating temperatures down to -60°C.

Caltex Capella A can contribute to seals shrinking to a level below the original manufactured size, which can lead to leakage. When there is doubt regarding the compatibility of seals with PAO based Caltex Capella A lubricant, the equipment manufacturer should be consulted.

Caltex Capella A may be used with R-22 refrigerant only if this is expressly recommended by the compressor manufacturer and where the evaporator temperature is higher than -20°C (R22).

In addition to good low temperature properties, dryness is essential in refrigeration oils. Caltex Capella A is delivered with extremely low dissolved moisture levels, but any exposure of unsealed containers to air will result in rapid absorption of water. Ordering, storage and handling procedures must be such that exposure of product to air and moisture is minimized.

ENVIRONMENT, HEALTH and SAFETY

Information is available on this product in the Caltex Material Safety Data Sheet (MSDS) and Caltex Customer Safety Guide. Customers are encouraged to review this information, follow precautions and comply with laws and regulations concerning product use and disposal. To obtain a MSDS for this product, visit www.caltexoils.com.

This bulletin was prepared in good faith from the best information available at the time of issue. While the values and characteristics are considered representative, some variation, not affecting performance, can be expected. It is the responsibility of the user to ensure that the products are used in the applications for which they are intended.

Produced by Chevron Global Lubricants, Asia Pacific.