

Product Data Sheet

Mobil EAL Arctic Series Synthetic Refrigeration Lubricants

Product Description

Mobil EAL Arctic Series oils are synthetic lubricants formulated from selected polyol ester basestocks and special additives which provide outstanding miscibility, thermal stability, lubricity and resistance to hydrolysis.

Mobil EAL Arctic Series oils are part of Mobil's EAL (Environmental Awareness Lubricants) family of products. They were developed to lubricate refrigeration compressors and system components using HFC-134a, the ozone-friendly, chlorine-free refrigerant which is replacing R-12 in most refrigeration applications around the world today.

The Mobil EAL Arctic Series oils are packaged in special dried metal containers. Following filling, a nitrogen blanket is introduced to ensure product integrity. As a result Mobil EAL Arctic Series oils have a moisture content of less than 50ppm.

Note! Mobil EAL Arctic 22CC has also been developed especially for Copeland refrigeration compressors where it provides outstanding protection against compressor wear. See separate Product Data Sheet.

Benefits

Mobil EAL Arctic Lubricants are not blends of different viscosity esters. Each product is manufactured in its own reaction process resulting in the following benefits:

- Longer lubricant life
- Properly controlled miscibility for higher system efficiency
- Reduced compressor wear
- Excellent low temperature fluidity
- Excellent high temperature stability
- Excellent hydrolytic stability
- Exceptionally low moisture content

Application

The Mobil EAL Arctic Series are available in a wide range of viscosity grades. They are suitable for use in domestic refrigerator/freezers, household air conditioning units, industrial refrigeration systems and in all applications where HFC refrigerants are recommended. The products meet the performance requirements of many major compressor makers and system builders and their performance in HFC refrigeration systems has been well documented.

These superior lubricants exhibit the desired miscibility at critical temperatures, acceptable solution viscosity (lubricant/refrigerant mixture) for wear protection and good stability for long service life. They are also compatible with HCFC and CFC refrigerants and other refrigeration lubricants such as conventional mineral oil, Polyalphaolefins (PAO) and alkyl benzenes (AB's).

Health and Safety

Based on available toxicological information, it has been determined that these products pose no significant health risk when used and handled properly.

Details on handling, as well as health and safety information, can be found in the Material Safety Data Bulletin which can be obtained through Mobil Oil Company Ltd., by telephoning 01372 22 2000.

Typical physical characteristics are given in the table. These are intended as a guide to industry and are not necessarily manufacturing or marketing specifications.

Typical Characteristics

Mobil Arctic EAL		22	32	46	68
	Test Method				
ISO Viscosity Grade		22	32	46	68
Viscosity, cSt at 40°C	ASTM D445	24	32	46	63
Viscosity, cSt at 100°C	ASTM D445	4.7	5.5	6.9	8.3
Viscosity Index	ASTM D2270	116	109	104	101
Pour Point, °C	ASTM D97	<-54	-54	-51	-43
Flash Point, °C	ASTM D92	245	245	251	254
TAN, mg KOH/g	ASTM D974	<0.1	<0.1	<0.1	<0.1
Moisture Content, ppm	ASTM E1064	<50	<50	<50	<50
Floc Point, HFC-134a, °C	ASHRAE 86	-53	-56	-50	-42

Due to continual product research and development, the information contained herein is subject to change without notice.

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