



Mobil EAL Arctic Series

Environmental Awareness Lubricants for industrial refrigeration systems



Operate at peak productivity — with ozone-friendly efficiency.

Today, ozone-friendly chlorine-free HFC products have become the refrigerant of choice for consumers and equipment builders around the world, replacing banned CFC (chlorofluorocarbon) and HCFC (hydrochlorofluorocarbon) fluids. To improve the efficient and reliable operation of refrigeration systems where HFC refrigerants are used, we offer the high-performance Mobil EAL Arctic Series. These advanced products help provide improved evaporator cleanliness, long oil service life, less unscheduled downtime, and reduced maintenance costs in a broad range of HFC refrigeration and air-conditioning systems, from modern industrial and commercial to household.

Engineered for compatibility with HFC refrigerants.

High-performance refrigeration oils, Mobil EAL Arctic Series lubricants are formulated from proprietary, fully synthetic polyol ester (POE) base oils and a unique additive system to provide outstanding lubricity, wear protection, chemical and thermal stability, and hydrolytic stability. They are miscible with HFC refrigerants and have well-defined viscosity/temperature/pressure relationships with widely used HFCs. Mobil EAL Arctic Series is available in viscosity grades ranging from ISO VG 15 to ISO VG 220.

Recognized and appreciated for excellent performance.

Mobil EAL Arctic Series has received approvals and endorsements from many major compressor and system builders worldwide. It is recognized for meeting the stability and compatibility requirements for refrigeration applications — while complementing the new generation of ozone-friendly refrigerants.

High-Performance Benefits

Well-defined miscibility and VPT relationships with HFC refrigerants

Assures high system efficiency and proper oil return in refrigeration systems.

Excellent antiwear properties

Reduced compressor wear resulting in lower maintenance costs.

High Viscosity Index and wax-free

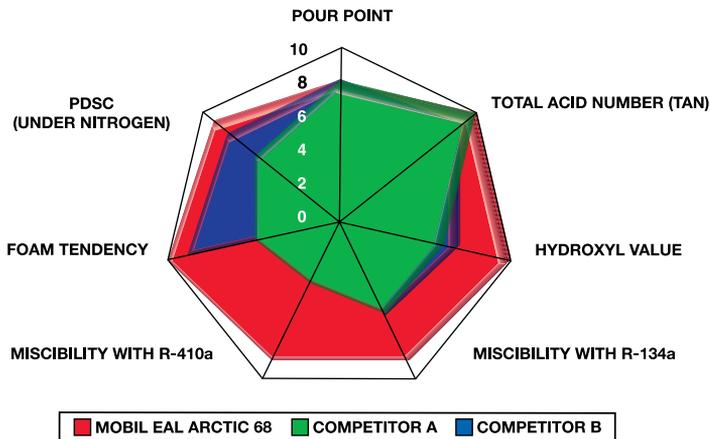
Excellent low-temperature fluidity and no waxy deposits help improve evaporator efficiency.

Wide viscosity range

Formulated to meet the specific viscosity requirements of a wide range of compressors and applications.

Mobil EAL Arctic Series — Performance

Balanced Formulation Comparison of Competitive Products



Mobil EAL Arctic 68 demonstrates well-balanced performance on key refrigeration oil parameters. Compared with competitive POE products, it has superior miscibility with key HFC refrigerants such as R-134a and R-410a.

Reduced Foam for Better Lubrication

CHART 1

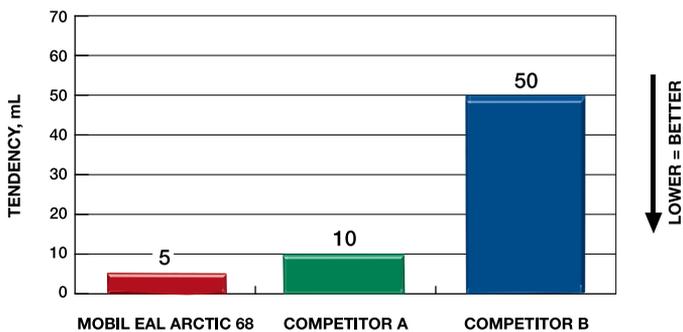
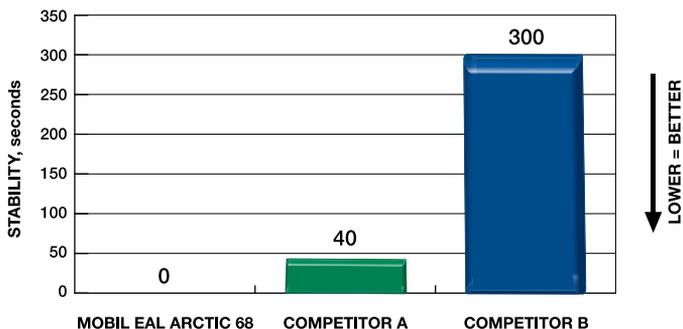


CHART 2



Mobil EAL Arctic Series has excellent performance with respect to foaming tendency (the amount of foam generated, Chart 1) and foam stability (the length of time it takes for the foam to break up, Chart 2), which provides improved equipment lubrication.

Stability for Longer Oil Life

CHART 3

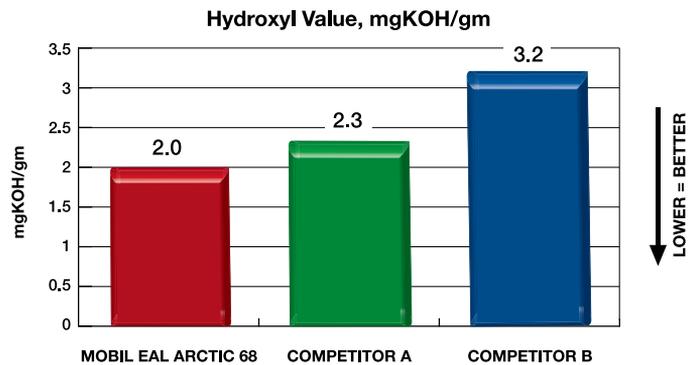
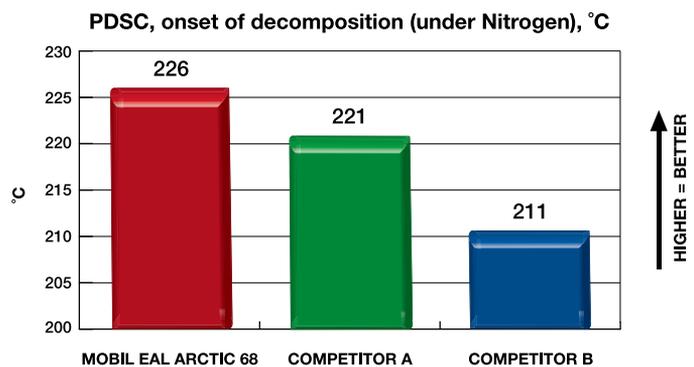
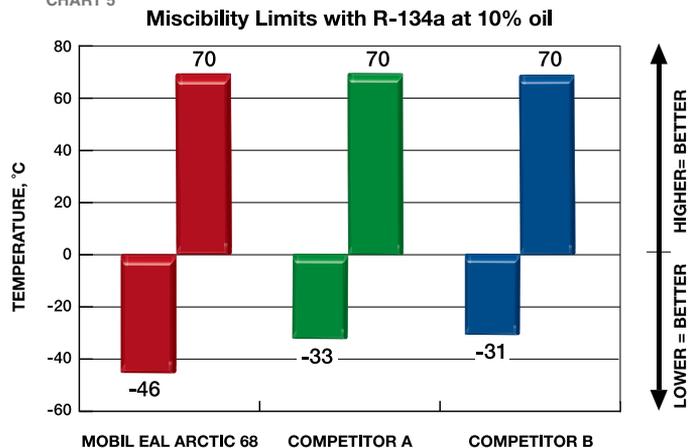


CHART 4



Charts 3 and 4 demonstrate the excellent hydrolytic and thermal stability of Mobil EAL Arctic Series relative to corresponding competitive products. Strong performance on these parameters equates to longer oil service life and improved refrigeration system performance due to improved equipment cleanliness.

CHART 5



Relative to corresponding competitive products, Mobil EAL Arctic Series provides optimum compatibility over a broad evaporator temperature range for many HFC refrigerants such as R-134a (Chart 5).

Pour Point — low-temperature pourability of the oil. **Total Acid Number** — acidity of the oil. **Hydroxyl Value** — chemical stability of the ester. **Miscibility** — compatibility of the oil with the refrigerant gas. **Foam Tendency** — resistance of the oil to foam/form bubbles. **Foam Stability** — measure of foam dissipation in the oil. **Pressurized Differential Scanning Calorimeter (PDSC)** — measure of the thermal stability of the oil.

For more information on Mobil EAL Arctic Series and other Mobil Industrial Lubricants and services, please contact your local company representative or visit www.mobilindustrial.com.