# Mobil Zerice S Series

Mobil Industrial , Republic of Madagascar

Refrigeration Compressor Lubricants

## Product Description

Mobil Zerice S Oils are premium quality synthetic refrigeration compressor lubricants based on alkyl benzenes, which due to their nature, have superior miscibility with hydrochlorofluorocarbon (R22). This allows them to be used in very low temperature applications, down to -60°C. In certain circumstances, they can also be used in compressors where ammonia acts as the refrigerating fluid.

## Features and Benefits

Relative to mineral and other synthetic lubricants, Mobil Zerice S has superior solubility with halocarbon refrigerants. This helps avoid the common problem of oil separation and congealing on the valve and heat transfer surfaces of the refrigeration system.

Additionally, Mobil Zerice S lubricants have very low pour and floc points which helps prevent harmful wax precipitation that can block expansion valves and heat transfer surfaces.

The synthetic nature of Mobil Zerice S lubricants provides excellent chemical stability which resists reaction with refrigerants, as well as high thermal stability which helps prevent oil breakdown.

| Features | Advantages and Potential Benefits |
|---|---|
| Miscibility with halocarbon refrigerants | Increased system efficiency |
| Low pour and floc points | Avoids wax precipitation and increased system efficiency |
| Chemical Stability | Long oil service life |

## Applications

Mobil Zerice S lubricants are recommended for all refrigeration compressor types: reciprocating or rotary screw. They are well suited for use with hydrochlorofluorocarbon refrigerants, and may also be suited for use with ammonia in certain equipment builders' compressors. They should not be used with sulfur dioxide or R134A refrigerants. The specific viscosity grade should be selected in accordance with the compressor manufacturer's recommendations.

## Properties and Specifications

| Property | 32 | 46 | 68 | 100 |
|---|---|---|---|---|
| Grade | ISO 32 | ISO 46 | ISO 68 | ISO 100 |
| Acid Number, mgKOH/g, ASTM D974 | 0.05 | 0.05 | 0.05 | 0.05 |
| Copper Strip Corrosion, 3 h, 100 C, Rating, ASTM D130 | 1 | 1 | 1 | 1 |
| Flash Point, Cleveland Open Cup, °C, ASTM D92 | 154 | 154 | 174 | 186 |
| Kinematic Viscosity @ 40 C, mm2/s, ASTM D445 | 32 | 46 | 68 | 100 |

| Property | 32 | 46 | 68 | 100 |
|---|---|---|---|---|
| Pour Point, °C, ASTM D97 | -33 | -30 | -27 | -27 |
| R12 Flocculation Point, °C, AMS 100.42 | -60 | -60 | -60 | -60 |
| Water, ppm, ASTM D1533 | <30 | <30 | <50 | <30 |

### 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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