# Mobil Rarus SHC™ 1020 Series

Mobil Industrial , Japan

Air Compressor Lubricant

## Product Description

The Mobil Rarus SHC™ 1020 Series is a line of supreme performance oils primarily intended for the lubrication of severe duty rotary screw and vane air compressors. They are particularly suited for severe service where mineral oil-based products are not meeting expectations such as in severe applications subjected to high final compression temperatures or where extended oil drain intervals are desired. They are formulated with design-specific wax-free synthetic hydrocarbon fluids and a high technology additive system that assures exceptional resistance to oxidation and thermal degradation far superior to mineral oil-based air compressor oils. They provide outstanding equipment protection and reliability for compressors operating under conditions where other air compressor oils are not meeting expectations. Mobil Rarus SHC 1020 Series provide excellent wear protection and outstanding resistance to oxidation and thermal degradation, greatly superior to mineral oils. Their unique formulation provides the ability to reduce maintenance costs through minimising equipment problems and downstream deposits and carryover. Their high viscosity index ensures effective lubrication at high temperatures.

Mobil Rarus SHC 1020 Series lubricants significantly reduce the potential for fires and explosions when compared to mineral oil-based products. They exhibit a virtual absence of deposit formation and high autogeneous ignition temperatures improving both performance and safety. Their exceptional water separating characteristics reduce problems with emulsion formation coalescers and filters reducing the need for frequent maintenance.

## Features and Benefits

The use of the Mobil Rarus SHC 1020 Series oils can result in cleaner compressors and lower deposits compared to conventional mineral oils, resulting in longer running periods between maintenance intervals. Their excellent oxidation and thermal stability safely allow extended life capability while controlling sludge and deposit formation. They possess outstanding anti-wear and corrosion protection, which enhances equipment life and performance.

| Features | Advantages and Potential Benefits |
|---|---|
| High Performance Synthetic Base Stocks | Wide temperature range capability<br>Significant performance capabilities relative to mineral oils<br>Improved safety<br>Extended service life |
| Outstanding Oxidation and Thermal Stability | Reduced coking deposits<br>Longer oil life<br>Improved filter life<br>Lower maintenance costs |
| High Load-carrying ability | Reduced wear of bearings and gears |
| Excellent Water Separability | Less carryover to downstream equipment<br>Reduced sludge formation in crankcases and discharge lines<br>Reduced blockage of coalescers, inter- and after-coolers<br>Less potential for emulsion formation |
| Effective Rust and Corrosion Protection | Improved protection of internal compressor components |

## Applications

The Mobil Rarus SHC 1020 Series oils are primarily intended for rotary screw and vane compressors. They are particularly effective for continuous high

temperature operation with discharge temperatures up to 200° C. Rarus SHC 1020 Series oils are recommended for units with a history of excess oil degradation, poor valve performance or deposit formation. They are compatible with all metals used in compressor construction and with conventional mineral oil-based air compressor oils but admixture with other oils may detract from the total performance capability.

Mobil Rarus SHC 1020 Series oils are not recommended for air compressors used in breathing air applications and should not be used in compressors where the discharge temperature is higher than the product flash point.

The following types of compressor applications have shown excellent performance with the Mobil Rarus SHC 1020 Series oils:

- Primarily recommended for rotary screw and vane air compressor
- Very effective in screw type compressors with oil injection cooling
- Units operating under severe conditions
- Multistage units with a history of excessive oil degradation from mineral oil-based products
- Compressor systems with critical gears and bearings
- Compressors used in stationary and mobile applications

### Properties and Specifications

| Property | MOBIL RARUS SHC 1024 | MOBIL RARUS SHC 1025 | MOBIL RARUS SHC 1026 |
|---|---|---|---|
| Grade | ISO 32 | ISO 46 | ISO 68 |
| Copper Strip Corrosion, 24 h, 100 C, Rating, ASTM D130 | 1B | 2A | 1B |
| Flash Point, Cleveland Open Cup, °C, ASTM D92 | 245 | 246 | 246 |
| Kinematic Viscosity @ 100 C, mm2/s, ASTM D445 | 5.7 | 7.2 | 10.1 |
| Kinematic Viscosity @ 40 C, mm2/s, ASTM D445 | 31.5 | 44 | 66.6 |
| Pour Point, °C, ASTM D97 | -48 | -45 | -45 |
| Rust Characteristics, Procedure A, ASTM D665 | PASS | PASS | PASS |
| Specific Gravity, 15 C/15 C, ASTM D1298 | 0.846 | 0.849 | 0.856 |
| Viscosity Index, ASTM D2270 | 127 | 131 | 136 |

### 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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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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