



## Mobil Rarus SHC™ 1020 Series

### 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 one-stage compressors operating at pressures above 90 psi.

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

## Typical Properties

| Mobil Rarus SHC 1020 Series                      | Mobil Rarus SHC 1024 | Mobil Rarus SHC 1025 | Mobil Rarus SHC 1026 |
|--|----------------------|----------------------|----------------------|
| ISO Viscosity Grade                              | 32                   | 46                   | 68                   |
| Viscosity, ASTM D 445                            |                      |                      |                      |
| cSt @ 40° C                                      | 31.5                 | 44                   | 66.6                 |
| cSt @ 100° C                                     | 5.7                  | 7.2                  | 10.1                 |
| Viscosity Index, ASTM D 2270, min                | 127                  | 131                  | 136                  |
| Copper Strip Corrosion, ASTM D130, 24 h @ 100° C | 1B                   | 2A                   | 1B                   |
| Rust Characteristics Proc A, ASTM D 665          | Pass                 | Pass                 | Pass                 |
| Pour Point, ASTM D 97, °C, max                   | -48                  | -45                  | -45                  |
| Flash Point, °C, ASTM D 92                       | 245                  | 246                  | 246                  |
| Specific Gravity 15° C/15° C, ASTM D 1298        | 0.846                | 0.849                | 0.856                |

## Health and Safety

Based on available information, this product is not expected to produce adverse effects on health when used for the intended application and the recommendations provided in the Material Safety Data Sheet (MSDS) are followed. MSDS's are available upon request through your sales contract office, or via the Internet. This product should not be used for purposes other than its intended use. If disposing of used product, take care to protect the environment.

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