Chevron
marine products

Meropa® EliteSyn WS



Description

Meropa® EliteSyn WS is a synthetic industrial gear lubricant range designed to offer excellent performance under demanding operating conditions. Meropa EliteSyn WS is formulated with water soluble polyalkylene glycols, and promotes robust micro-pitting resistance, extreme pressure (EP) performance and thermal stability with good corrosion protection. With very low coefficients of friction of water soluble polyglycols, Meropa EliteSyn WS contributes to lower mechanical losses and higher efficiencies in many applications.

Typical Characteristics

ISO Viscosity Grade	**150**	**220**
MPID	**219426**	**219427**
Density at 15°C kg/L (ASTM D4052)	1.06	1.06
Flash Point, COC, °C (ASTM D92)	298	296
Pour Point, °C (ASTM D97)	-42	-42
Kinematic Viscosity at 40°C, mm^2/s (ASTM D445)	156	231
FZG Load Stage, A/8.3/90 (ASTM D5182)	>14	>14
FZG Micropitting, Failure Stage (FVA 54)	10/High	10/High
Viscosity Index	230	230

Recommended Applications

Meropa EliteSyn WS is an industrial gear oil range applicable with the following different gear designs: helical, bevel helical, planetary and worm gears, and marine gear units. The products are also suitable for the use of different applications, like: fill for life — disposable gearboxes, textile lubricants, chain and conveyor lubricants, kiln and oven lubricants, sliding bearings and roller bearings in high load/EP applications.

Meropa EliteSyn WS is approved by:

- ☑ **Allmineral** Lube Chart (ISO 220)
- ☑ **Cryostar** CLP PG 220 (ISO 220)
- ☑ **Flender** Rev 16.1 Helical-Bevel-Planetary Gear Units
- ☑ **Flender** Rev 16.2 Worm Gear units
- ☑ **PEKRUN WERKNORM** N8053
- ☑ **WALDRICH SIEGEN** Lubricants for machine tools (ISO 150)

Meropa EliteSyn XM meets the requirements of:

- ☑ **CRYOSTAR** CLP PG 150 (ISO 150)
- ☑ **David Brown** Table G
- ☑ **DIN** 51517/3 CLP
- ☑ **ISO** 12925-1 CKPG

Performance Benefits

1. Extended Oil Life Performance
Advanced formulation offers longer oil service life when compared to mineral oils, helping reduce service costs

2. Component Protection
Formulated to help minimise micro-pitting, offering longer component service life with reduced maintenance

3. Extreme Pressure Performance
Engineered to help provide a premium EP protection, contributing to reduced downtime

4. Thermal and Oxidation Stability
High thermal stability and oxidation resistance contribute to improved oil service life

5. Clean System Operation
Designed to help minimize harmful sludge and deposit formation to promote keep-clean performance

6. Wear and Corrosion Protection
Offers premium wear and corrosion protection and helps optimise equipment life

PRODUCT MAINTENANCE AND HANDLING

Product Maintenance and Handling

Meropa EliteSyn WS is a PAG gear lubricant which is not compatible with mineral oils or most other synthetic lubricant types. A change over procedure is available on request.
There is an incompatibility between PAGs and AL due to the high polarity of Polyglycol with regard to lubricated "tribo components" (friction partners steel to Al material) like bearing cages or worm gear drives and therefore the combination is not allowed! But Al-gearboxes - which have no bearing or sliding surfaces in direct contact with a steel shaft - are uncritical and can therefore be used with Meropa EliteSyn WS. Please check with the customer/OEM.

Meropa EliteSyn WS should preferably not be mixed with other polyglycol based lubricants in order to preserve the premium properties of Meropa Elitesyn WS. Mixing with other PAG based gear oils could result in a change in appearance. Please note that possible haziness has no influence on the performance of Meropa EliteSyn WS.

Meropa EliteSyn WS does not affect common seal and gasket materials. The use of Nitrile Rubber (NBR), Fluoro-Silicone or Vinyl-Methyl Polysiloxane (Q) is recommended for high temperature applications.

The product is not compatible with polyurethane based elastomers, leather, cork, asbestos, paper and board.

It is recommended to use Meropa EliteSyn WS in gearboxes where the internal surface is unpainted or coated with resistant materials, for example a resistant two-pack epoxy formulation.

Service Considerations

Unlike mineral oil based lubricants which break down and form deposits at high temperatures, the polyalkyene glycol (“PAG”) base fluid of Meropa EliteSyn WS tends to decompose to fluid components or volatile products, retaining its lubricating properties as long as any fluid film remains. The mixed polyalkylene glycol molecules in Meropa EliteSyn WS are also polar in nature, providing a solvent action on polar oxidation compounds which minimizes separation of insoluble sludges and deposits, helping to keep the lubrication system and machine surfaces clean. PAGs are hygroscopic in nature, and under normal operating conditions Meropa EliteSyn WS can be expected to contain about 2000 ppm of water. Importantly, this is not free water, which can lead to loss of lubricating oil film and corrosion. With Meropa EliteSyn WS, by contrast, absorbed water is hydrogen- bonded to the PAG molecules and does not interfere with oil film retention.

FLUSH PROCEDURE

The following procedure should be adhered to when changing from mineral oil or other type PAG based gear lubricant to Meropa EliteSyn WS:

Let the system run until the oil in service is warm. Drain as much as possible and pay attention to reservoirs, lines, etc., where oil may be trapped. Clean the system from residual sludge.

Flush the system with a minimum quantity of Meropa EliteSyn WS by operating under no load and drain the system while the fluid is warm. Repeat if necessary.

Seals that have been exposed to other oils may shrink when they are exposed to Meropa EliteSyn WS. Therefore, they should always be inspected. Often, careful inspection of the system for leaks can be sufficient, but it may be advantageous to replace the seals.

In case seals are deteriorated, they must be replaced.

It is recommended to inspect the lubricant after one or two days in use to make sure that it is free of extraneous materials. Contamination with significant quantities of other lubricants can, in some cases, lead to sludge formation, foaming and other problems.

Environment, Health and Safety

Information is available on this product in the Safety Data Sheet (SDS) and Customer Safety Guide. Customers are encouraged to review this information, follow precautions and comply with laws and regulations concerning product use and disposal. To obtain an SDS for this product visit chevronmarineproducts.com.

Disclaimer. Data provided in this PDS is based on standard tests under laboratory conditions and is indicative only. Minor variations which do not affect product performance are expected in normal manufacturing. This product should not be used for any purpose other than those expressly set out in this PDS. The user has sole responsibility for verifying that this product is suitable for the user's intended application. Recommendations differ between engine manufacturers so always consult your manual. Neither Chevron nor its subsidiaries make any warranty or representation as to the accuracy or completeness of this PDS and neither Chevron nor its subsidiaries accept liability for any loss or damage suffered as a result of the use of this product other than in accordance with the terms of this PDS.

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