Meropa® Synlube WS (old name Synlube® WS)

Synthetic Industrial Gear Oil

Product Data Sheet

Customer benefits

Protects metal surfaces

Effective EP and anti-wear additives, plus the high oil film-building tendency of the polar poly-glycol base fluid, minimize wear under highly loaded conditions. High thermal stability and inherent solvency characteristics of polyalkylene glycol maintains gear and bearing surfaces in a clean condition preventing lubricant film disruption, minimizing wear rates, and preventing seal failure.

Effective friction reduced

Naturally high lubricity of the polyalkylene glycol synthetic base fluid lowers friction between moving parts. The very high viscosity index means there is little oil thickening at low temperatures, and less oil thinning at high temperatures which could otherwise allow friction inducing metal-to-metal contact.

Oxidation stable

High oxidation stability of the polyalkylene glycol base fluid, plus the addition of effective oxidation inhibitors, prevents acid build-up, oil thickening, and formation of gum, varnish and sludge, making extended oil drain intervals possible.

Applications

Can include;

- All types of gears and bearings where use of conventional mineral oil based product is restricted by the severity of operating conditions
- Enclosed industrial gearboxes containing spur, bevel and especially worm gears, including filled-for-life units
- Typical gear applications include rolling and grinding mills, paper making and mining machines, calenders, stirrer units, rubber kneaders, furnace doors, conveyors, chains, winches, dredges, cranes, etc.
- Ball, roller and plain bearings exposed to very heavy-duty conditions

Not miscible with mineral oil based lubricants.

Product features:

- **Meropa® Synlube WS** is a premium quality, polyalkylene glycol (PAG) based synthetic industrial gear lubricant specifically designed for very severe applications.
- **Meropa® Synlube WS** has been specifically formulated to provide exceptional EP performance, outstanding protection against wear and micro-pitting for long service life in demanding operating conditions, and higher water-tolerance than other synthetic gear lubricants.

Typical key properties

MEROPA® SYNLUBE WS					
ISO Grade	150	220	320	460	680
Product Code	540073	540074	540075	540076	540077
Copper Strip Corrosion, 3 hrs @ 100°C	1b	1b	1b	1b	1b
FZG, Failure Load Stage	-	12+	12+	12+	-
Pour Point, °C	-47	-42	-39	-36	-33
Viscosity, Kinematic					
mm²/s @ 40°C	150	220	320	460	680
mm²/s @ 100°C	25.0	41.9	60.6	83.0	122.2
Viscosity Index	232	242	252	262	272

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Performance standards

- German Standard DIN 51517 Part 3 CLP
- David Brown (Textron) performance requirements Type G Lubricants

ENVIRONMENT, HEALTH and SAFETY

Information is available on this product in the Material Safety Data Sheet (MSDS) 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 a MSDS for this product, visit: www.chevronlubricants.com.

Meropa® Synlube WS

Service considerations

Unlike mineral oil based lubricants which break down and form deposits at high temperatures, the polyalkyene glycol ("PAG") base fluid of Meropa® Synlube 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® Synlube 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® Synlube 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® Synlube WS by contrast, absorbed water is hydrogen-bonded to the PAG molecules and does not interfere with oil film retention. Tests have shown that Meropa® Synlube WS can absorb as much as 1% water with no negative effect on performance or corrosion protection.

Meropa® Synlube WS is generally compatible with other PAG-type lubricants, however mixing by top-up should be avoided since the premium properties of Meropa® Synlube WS can be compromised by another used lubricant. Gear systems should be drained warm and filters replaced before filling with Meropa® Synlube WS.

Meropa® Synlube WS is not miscible with conventional mineral oils. A mineral oil content of less than 3%, however, should not lead to phase separation, although some slight turbidity may be observed. Nevertheless it is recommended to remove all traces of mineral oil by first draining the system warm, particular attention being paid to reserviours, lines etc., where oil may be trapped. The system should be clean of residue sludge.Thoroughly flush with the minimum necessary volume of Meropa® Synlube WS by operating the gear set under no load, , then drain the system whilst the fluid is warm. Repeat if necessary. Seals, lines, filters, etc., should be inspected and if deteriorated then replaced. Replace seals, filter elements before re-filling with new Meropa® Synlube WS. Seals previously exposed to other oils may shrink when exposed to Meropa® Synlube WS, therefore it may be advantageous to replace them however this is not mandatory. Careful inspection of the system for signs of leakage for 1 week after changeover will often suffice. It is also useful to inspect the lubricant after one or two days in use to make sure that it is free of extraneous materials, Contamination with significant quantaties of other lubricants can, in some cases, lead to sludging , foaming and other problems.

Produced by:
Chevron Lubricants
- Asia Pacific

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Service considerations

Meropa® Synlube WS is compatible with most seal types, including nitrile, EPDM, Viton, PTFE and nylon, however not with natural rubber. Polyurethanes base elastomers, leather, cork, asbestos, paper and board should be avoided.

Meropa® Synlube WS is not compatible with phenolic/alkyd type industrial paints, so the internal surfaces of gearboxes should be left unpainted or, alternatively, coated with two-part epoxy formulations.

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