Olipes
The Professionals' Lubricants

HEADQUARTERS – FACTORY
P. E. Borondo – Aluminio 2-3
28510 Campo Real (Madrid) - Spain

ESPAÑA - PORTUGAL:
0034 918 765 244
0034 918 733 886
comercial@olipes.com
clientes@olipes.com

OTHER COUNTRIES:
0034 918 765 603
0034 918 733 886
export@olipes.com
exportation@olipes.com

OLIOL 46 - 68 - 100

DESCRIPTION:

OLIOL oils are 100% synthetic high performance oils based on Polyalkylene Glycol, specially designed to withstand extreme lubrication conditions and long service life.

PROPERTIES & ADVANTAGES:

- Excellent resistance to oxidation, minimal thermal and chemical degradation.
- Reduced coefficient of friction, minimizing wear and the phenomenon of micropitting.
- Excellent cold flowability, minimizing stress during start-up.
- Guaranteed protection of the system against rust and corrosion.
- High polarity, providing fast anchorage to metal surfaces.
- Minimal formation of sludge and deposits, keeping the system in an excellent degree of cleanliness.
- Guaranteed protection of the system against corrosion.
- Excellent shear stability, maintaining stable viscosity over time.
- Reduction of machinery maintenance costs.

TECHNICAL DATA:

PHYSICOCHEMICAL CHARACTERISTICS	STANDARD	VALUE		
ISO grade	ISO 3448	46	68	100
Viscosity index (v.i.)	ASTM D-2270	> 170	> 170	> 180
Pour point °C (°F), Max	ASTM D-97	-50 (-58)	-50 (-58)	-45 (-49)
Flash point, °C (°F), Min.	ASTM D-92	250 (482)	250 (482)	250 (482)
Copper corrosion, max (3h, 100 °C)	ASTM D-130	1b	1b	1b
Oxidation test on steel	ASTM D-665A	Pass	Pass	Pass
FZG (A/8.3/90), Failure stage	DIN 51534	> 12	> 12	> 12
4-ball EP test, welding load, kg	DIN 51350	> 220	> 220	> 220
TIMKEN load O.K.	ASTM D-2782	75	75	75

STANDARD OXIDATION TEST

Traditional Lubricant

Thermal Stable Lubricant

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APPLICATIONS:

- ✓ OLIOL (Series) oils are mainly indicated as COMPRESSOR LUBRICANTS and GEAR LUBRICATION with material combination steel / steel or steel / bronze and BEARING LUBRICATION.
- ✓ Thanks to its high lubricity and high thermal stability they can be successfully employed in drag chains and chains of high temperature chains.
- ✓ ISO 100 grade OLIOL oils are recommended for the lubrication of portable electric hammers (drillers/breakers) of the brands Bosch, Hitachi, Hilti,.....

As Compressor Lubricant:

OLIOL (Series) oils have many very advantageous properties when used as base oils for the lubrication of compressors handling air and other inert gases such as hydrogen, nitrogen, carbon dioxide, helium and argon:

- ✓ Unlike mineral oil and other hydrocarbons, they don't decompose in char or varnish. This ensures reduced deposits on the compressor and little dirt in various parts of the compressor.
- ✓ Its polar nature leads to lower solubility on hydrocarbon gases (methane and ethylene, for example), than mineral-based oils. This property is especially interesting for most alternative compressors used for hydrocarbon and chemical gas where gases can enter into the gearbox and bearings, as the low solubility of the gas leads to a reduction in the viscosity of the lubricant and thus the lubrication capacity; lubricant life is longer, the compressor runs more efficiently and undergoes less wear, and reduces the consumption of lubricant, so that efficiency of the process increases.
- ✓ OLIOL (Series) oils have excellent natural lubricity characteristics improved with the addition of anti-wear and extreme pressure additives, behaving less wear on the moving parts of the compressor.
- ✓ Its high natural viscosity index ensures stable viscosity / temperature behavior, maintaining the properties of the lubricant film at high temperatures. Also, this feature reduces the problems of compressor start at low temperatures.
- ✓ OLIOL (Series) oils, unlike other synthetic oils on the market, **can be used in various types of compressor** (centrifugal, reciprocating, rotary screw, sliding ring, etc.) **and vacuum pumps**.

Test Denison T6H20C. Today the unique test to proclaim HF-0. It combines piston and paddle pump.

OLIOL (Series) oils are widely used in lubrication of high speed reciprocating compressors (polyethylene) which are used in the manufacture of low density polyethylene, to pressures between 2000 and 3000 bars; intimate contact between the lubricant and polyethylene during polymerization, means that any product used must be accepted toxicologically. Although it can be used white oils and mixtures with polybutenes thereof compressor manufacturers prefer polyglycols since they have better lubricity, reduced lubricant consumption and lower ethylene solubility.

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As Gear Lubricants:

- ✓ As gear lubricants, OLIOL (Series) oils are especially effective in high temperature applications, high friction applications and enclosed industrial gear.
- ✓ The intrinsic characteristics of polyglycols based synthetic oils are remarkably improved on OLIOL (Series) oils with the addition of specific additives in its formulation.
- ✓ The most typical application of these oils is the worm gear lubrication, under heavy load, since the efficiency of a worm gear is linked to the friction between the lead screw and the rack, so that needs low coefficient lubricant friction. The high degree of slippage between the parts in contact, generates high working temperatures of gear, so the lubricant must have a high viscosity index, good thermal and oxidation stability. Also it must be able to dissipate heat to the refrigerator or outside easily and therefore possess good thermal conductivity. The use of OLIOL (Series) oils reduces the contact temperature.
- ✓ Lubricants on modern plastic calenders, pelleting feed, ball mills, papermaking machines and finishing sections of the textile plants are often subjected to temperatures exceeding 150°C. At these temperatures, mineral lubricants tend to decompose and form carbon deposits that result in gumminess problems, lacquers and varnishes. The high decomposition temperature of OLIOL (Series) oils in combination with their increased stability to oxidation, makes them **very suitable for** use in these applications, under temperatures over 200°C.

These lubricating oils meet the requirements, among others, depending on the viscosity grade, of the following specifications:

DIN 51517 Part 3 CLP, U.S. STEEL 224, SEB 181226 (ISO 68 and 100), CINCINNATI MILACRON P-63 (ISO 68) and P-76 (ISO 100), DIN 51524 Part 3 HVLP, VICKERS M - 2950 - S, STEEL FRENCH FT151, FT172, FT173, DIN 51506 VD-L, etc.

OLIOL (Series) oils can be used and exceed the specifications of the leading manufacturer of compressors, steam and gas turbines, and turbochargers where a synthetic POLYGLYCOL base oil is required.

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METAL COMPATIBILITY:

At room temperature OLIOL (Series) oils are neutral against steel and virtually all nonferrous metals, hence its widespread use in many types of industrial machinery. The addition of corrosion and oxidizing inhibitors makes them ideal for lubricating oils at high temperatures.
It is recommended to verify the wear in case of elements constructed of aluminum or alloys thereof whose surfaces in contact are subjected to strong dynamic stresses (sliding speed and high load).

ELASTOMER COMPATIBILITY:

Depending on the time and temperature synthetic oils based on polyglycols can attack elastomers. At constant temperatures up to 100 °C, nitrile rubber NBR (acrylonitrile butadiene) or even SBR (styrene-butadiene) can be used. For higher temperatures we recommend using sealing materials based on FKM (fluoroelastomers), VMQ (polysiloxane vinyl methyl), SBM and SILICONE (which supports points up to 250 °C), among others.
VITON O-rings (black fluoropolymer elastomer which withstands temperatures up to 300 °C) are recommended when there is considerable loss of lubricant mismatch, since the use of these oils as lubricant may actually increase up to 7.95% volume of these joints, reducing lubricant losses by this point (test method for determining the % volume change based on ASTM D-471 for 166 hours at 70 °C ± 2 °C).

COATING AND PAINT COMPATIBILITY:

We recommend the use of epoxy resin coatings or epoxy phenolic paints on the elements in contact with lubricants, given the natural tendency of polyglycols to soften and sometimes eliminate some paints and coatings. Visual level indicators will be made from natural glass or materials based on polyamides because other transparent plastics such as plexiglass may tend to crack.
In case of applications in series is recommended to verify the compatibility of the materials used in the design and construction of equipment that come into contact with the selected lubricants.

OTHER LUBRICANTS COMPATIBILITY:

OLIOL (Series) oils are NOT miscible with mineral oils or synthetic hydrocarbon. Before using a OLIOL (Series) oil in a circuit that has contained other lubricants, it is recommended to fully drain the tanks, change filters, clean and purge circuits bearings, gears and closed lubrication systems with the same type of OLIOL (Series) oil that which will be used below.

PACKAGING:

20L jerrycan.

"These data represent mean values after different tests. Given the wide variety of operating conditions, they do not represent a basis for setting specifications. Olipes SL reserves the right to modify the indicated data without prior notice"