Lubrication Systems Company

LubriMist® Synthetic Oil

LubriMist® Synthetic Oils (LSO) are high-performance lubricants designed over a 20 year period for use in oil mist systems. They are formulated from diester base stocks and advanced additive systems. LSO provides significant performance advantages in oil mist systems as compared to other lubricants such as mineral and PAO based. Users recognize that lubricant properties targeted for performance in flooded lubrication may not be ideal for oil mist systems. LSO offers specific advantages for use in oil mist systems and for oil mist lubrication.

- High solvency properties keeps the internal passages of the oil mist central generating vortex/venturi clean and clog-free.
- High solvency means clog-free oil mist piping, tubing and reclassifiers (metering orifice device) even in cold climates.
- Excellent dispersency properties insure that oil mist particles fully wet metal surfaces with an oil film.
- The high solubility properties of diester means additives do not come out of solution at critical points in the mist generation process and delivery system such as in the mist generating vortex/venturi and reclassifiers.(1)
- LSO is comprised of highly polar molecules and these form strong bonds with bearing metal surfaces insuring high film strength and superior lubrication.
- Excellent low temperature properties of LSO eliminate the need for heat tracing and special sloping of oil mist distribution piping in cold climates.

LubriMist® Synthetic Oils are manufactured for LSC by Infineum, a global leader with over 70 years of experience in formulating high-quality fuel and lubricant additives. Please visit www.infineum.com to learn more about Infineum.

Oil Mist System Maintenance Package and Warranty

LSC offers a unique and comprehensive maintenance package for LubriMist® oil mist systems. The package consists of scheduled/pro-active maintenance, supply of LSO and guaranteed mist system performance. The package is available with new construction and also can be tailored to existing oil mist systems. With new construction, LSC is often able to extend the initial warranty period of the mist system when LSC performs follow-on maintenance and LSO is used. The use of LSO significantly improves the operation of the mist system enabling LSC to extend the warranty.

Oxidative Stability

The base stocks used in LSO are uniform in composition. They do not contain varying molecular weight components, common in mineral based (synthetics are petroleum oils too) oils, which deteriorate more readily at elevated temperatures. LSO possesses superior oxidative stability and can be used over a broad temperature range. LSO contains no volatile organic compounds, which makes them more environmentally friendly.

Flash Point/Auto-Ignition

Because LSO contains no low molecular weight components, LSO has higher flash point and ignition temperatures than mineral based oils. These are important safety factors,

Operating Temperature Range

LSO has a very low pour point and is wax free, making it ideal for low temperature applications. LSO completely eliminates cold weather reclassifier plugging problems as encountered when mineral based or other low polar oils are used in oil mist systems. In applications where operating temperatures are severe (>275°F), LSO resists the buildup of hard carbon deposits.

Compatibility

LSO is fully compatible with conventional low solvency mineral oils and PAO synthetics. Neither separation nor undesirable reactions occur when the products are mixed. LSO is compatible with commonly found paints, plastics and metals. Some polymers used in O-Ring seals will swell with contact with LSO. Experience shows that swelling of O-Ring seals is generally more beneficial than the shrinkage which can occur with PAO based lubricants.

Grades & Availability

LSO is available in a range of viscosities; LSO – 32, 46, 68, 100 and 150. These conform to the International Standards Organization (ISO) viscosity classification system. LSO grades 46, 68 and 100 are typically used in pure oil mist (dry sump) applications. LSC can supply LSO on a world-wide basis. Drums are currently the standard package with options for supply in bulk and totes.

Wet Ability

Since LSO is a highly polar lubricant, it has an affinity for metal surfaces, assuring that all surfaces are continuously coated with oil. This is especially important in oil mist systems in which the mist is not directed onto all metal surfaces in a bearing box.

Recycling, Safety and Environmental Health

LSO can be reconditioned and recycled using traditional filtering, oil purification and air/gas stripping technologies. Recycling of LSO using the ThermoJet® Oil Purifier makes the use of LSO extremely economical and cost justifiable.

Under the provisions of Title III, Sections 311/312 of the Superfund Amendments and Reorganization Act, LSO products are classified as "not hazardous". As with any oil based product, good personal hygiene should be practiced. LSO fluids are readily removed from the skin by waterless hand cleaners, followed by washing with soap and warm water. For additional information, please refer to www.lsc.com where the Material Safety Data Sheet of each grade of LubriMist® Synthetic Oil is available.

(1) Additive solubility is very important when selecting the type of oil for use in oil mist systems. Experience shows additives in non-polar lubricants may come out of solution at critical points in the mist system (reclassifiers and mist head) and this phenomenon may lead to the formation of deposits (wax/honey-like) that may cause plugging.