



LUBRICANTS

Esters can be used in industrial oils, metalworking fluids and automotive oils. Most common application areas are high temperature/high performance synthetic industrial oils such as chain oils, HFD-U hydraulic fluids, compressor oils and gear oils. As to metalworking fluids and automotive oils, esters are mainly used in high performance/premium products.

Fire Resistant Hydraulic Fluids (HFD-U Type): TMTO-0422 and TMTO-0622 are respectively 46 cSt and 68 cSt TMPTO esters that are the main component of HFD-U type hydraulic fluids.

High Temperature Chain Oils: TMCC-4011, TTM-3211, TTM-1211 (shows low volatility, thermal stability. More durable to varnish formation under high temperatures)

Compressor Oils: Diesters such as DPHP-3911, DTDP-9011 (suitable for synthetic air compressor oils)

High-speed Greases: TMCC-0211 (show excellent lubricity and oxidation stability)

Heavy-load Greases: We offer high viscosity esters up to 2500 cSt such as TMTO-1011 K and CTMO-2511 K

Food Grade Greases: We have NSF 3H approved ester TRIEST CMCT-0811 around 80 cSt. SMO-1711 can be used in food grade greases as well since it is fully obtained from natural resources.

Neat Cutting Fluids: We have lower viscosity esters around 5-10 cSt, such as EHO-0821 and IPO 0511; or we can offer GTO-0411 at 40 cSt. These are 100% bio-based.

Metalworking Fluids: SMO-1711, TAO-1511, PLR-5011, PEG Esters and Phosphate Esters can be used in different formulations to increase stability/corrosion/lubricity/foam/etc. performances.

Engine Oils: TMTO-0421, TMCC-0211, DTDA-2611, EHO-0821 (these esters can be used as base oil, performance additive and/or an agent to increase solvency of other additives)

Transmission Oils: DTDA-2611

