FUNCTIONAL PRODUCTS INC.

Innovative Chemistry for Lubricants

Technical Data Sheet

FUNCTIONAL V-508M

Versatile Thickener for Biobased and Synthetic Ester Lubricants

APPLICATION:

FUNCTIONAL V-508M is a liquid viscosity modifier for a wide range of ester lubricants including vegetable oil, blown oils, and synthetic esters. **FUNCTIONAL V-508M** performs in both saturated and unsaturated ester base fluids as an economical and stable means of achieving higher viscosity. **FUNCTIONAL V-508M** is also compatible in water insoluble and oil soluble polyalkylene glycol (PAG) fluids.

FUNCTIONAL V-508M is NSF HX-1 approved and listed on the Ecolabel LuSC list which meets VGP requirements.

COMPOSITION:

FUNCTIONAL V-508F is a proprietary copolymer in a vegetable oil. **FUNCTIONAL V-508F** is readily biodegradable under all widely used standards.

Typical Properties	
Specific Gravity	0.93
Lbs per Gallon	7.75
Flash Point	150°C (300°F)
Kinematic Viscosity	2500 cSt at 100°C
Color	Yellow (<4 ASTM)
Biodegradable Content	80%
Shear Stability Index (PSSI), ASTM D6278 (10wt% in Canola)	29 SSI
20hr KRL Shear Stability, CEC L-45-A-99 (10wt% in Canola)	84%

TREATMENT LEVEL:

2 – 40wt% **FUNCTIONAL V-508M** is used to prepare ISO 46 – 680 fluids for hydraulics, rock drill, bar and chain, open gear, chain lubricants, and more. **FUNCTIONAL V-508M** is compatible in a wide range of biobased and synthetic esters.

FUNCTIONAL V-508M Treat Rates in Canola Oil (Starting From ISO 32-36)

ISO VG	46	68	100	150	220	320	460	680	1000	1500
wt%	2.5	7.5	11.5	17	21	26	31	37	42	48

HANDLING:

FUNCTIONAL V-508M is very viscous at room temperature. It may be warmed to about 50°C (120°F) to facilitate pumping and handling. The base oil should be heated to 150°F to 180°F during blending to allow for good mixing. Mixing time will vary with equipment but is typically at least one hour. Extended storage of this or any other vegetable oil derived product at elevated temperatures is not recommended. Safe handling precautions are the same as those to be taken with vegetable oils; see the current Safety Data Sheet.

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