

### FUNCTIONAL V-521L

THICKENER for FATTY OIL BASED LUBRICANTS

#### APPLICATION:

Triglyceride oils may be preferred as base stocks for blending hydraulic fluids and lubricants intended for use in environmentally sensitive applications. A disadvantage is that the viscosity is similar to ISO grade 32.

**FUNCTIONAL V-521L** is a **low viscosity, very easy to handle thickener** for triglyceride-based fatty oils to blend lubricants of ISO 46 to ISO 68 grades.

**FUNCTIONAL V-521L** has excellent low-temperature properties with reduced haze and pour point temperatures.

**FUNCTIONAL PD-585** pour point depressant is recommended for improving the low-temperature performance of a triglyceride-based lubricant composition.

#### COMPOSITION:

The active component in **FUNCTIONAL V-521L** is a polymer selected for its shear stability and thickening efficiency. This polymer is not readily biodegradable. The diluent in **FUNCTIONAL V-521L** is a biodegradable vegetable oil.

Typical Properties	
Specific Gravity	0.93
Lbs per Gallon	7.75
Flash Point	>200°C (393°F)
Kinematic Viscosity	300 cSt at 100°C
Color (ASTM D1500)	Light yellow (< 2.0)
Biodegradable Content	Approx. 90%
Shear Stability Index (PSSI), ASTM D6278 (10wt% in Canola)	30 SSI
20hr KRL Shear Stability, CEC L-45-A-99 (10wt% in Canola)	80%

#### TREATMENT LEVEL:

Typical treatment levels to attain particular ISO grades in canola oil:

##### FUNCTIONAL V-521L Treat Rates in Canola Oil (Starting From ISO 32-36)

ISO VG	46	68	100	150	220	320	460	680	1000	1500
wt%	8	16	28	40	48	54	66	76	86	96

The user should determine the optimum treatment level for a particular ISO grade.

#### HANDLING:

**FUNCTIONAL V-521L** can be warmed to about 50°C (120°F) if desired to facilitate pumping and handling.

Extended storage of this or any other vegetable oil derived product at elevated temperatures or below freezing is not recommended.