

### 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:

ISO Grade	Treat Level (wt%)
46	6.0 – 8.0
68	16.0 – 18.0

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.

This Technical Data Sheet and the Safety Data Sheet contain information believed to be accurate and reliable. No warranty is made, however, to information beyond the control of FUNCTIONAL PRODUCTS INC. The engineering and management personnel of the user are responsible for determining the suitability of this or any product for any specific application, and this information is offered to them for that purpose.

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