

FUNCTIONAL V-516

THICKENER for HIGH OLEIC VEGETABLE OIL BASED LUBRICANTS

APPLICATION:

High oleic vegetable oils are sometimes to be preferred as base stocks for blending oxidatively stable hydraulic fluids and lubricants intended for use in environmentally sensitive applications. A drawback, however, is that vegetable oils are all of a similar light viscosity, about 32-40 cSt at 40°C. **FUNCTIONAL V-516** is a thickener for high oleic vegetable-based oils, to blend lubricants of ISO 46, ISO 68, or ISO 100 viscosity grade. **FUNCTIONAL V-584** tackifier is recommended for all vegetable oil base stocks.

COMPOSITION:

The active additive in **FUNCTIONAL V-516** is a polymer selected for its shear stability and effectiveness in thickening. This polymer component is itself not readily biodegradable, but permits the viscosity adjustment of lubricants from biodegradable base oil systems. The diluent in **FUNCTIONAL V-516** is a biodegradable vegetable oil. **FUNCTIONAL V-516** is biodegradable under all widely used standards.

Typical properties	
Specific Gravity	0.91-0.92
Lbs per Gallon	7.6
Flash Point	>260°C (500°F)
Kinematic Viscosity	5000-7000 cSt at 100°C
Color	Yellow (<2 ASTM)
Biodegradable Content	Approx. 85%
Shear Stability Index (PSSI), ASTM D6278 (10wt% in Canola)	50 SSI
20hr KRL Shear Stability, CEC L-45-A-99 (10wt% in Canola)	88%

TREATMENT LEVEL:

A typical treatment level for an ISO 46 blend is 1.5% wt and 5.0% is required for an ISO 68 blend. For hydraulic fluids or other high-shear service applications, the recommendation is 2.0% and 6.0% respectively. **FUNCTIONAL V-516** does not affect either the pour point or the water-shedding properties of the finished lubricant.

HANDLING:

While warming **FUNCTIONAL V-516** to about 65°C (150°F) may facilitate pumping and handling, 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.

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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