

FUNCTIONAL V-584

TACKIFIER for Fatty Oil Based Lubricants (Food Grade)

APPLICATION:

FUNCTIONAL V-584 is an additive that confers a tack or stringiness to lubricants made from vegetable-based or animal-based fatty oils. Unlike other tackifiers that are effective in fatty oil, **FUNCTIONAL V-584** is registered with NSF as HX-1 category – an additive for lubricants used where incidental food contact may occur. It is principally used to provide adherence in chain oils in environmentally sensitive or food-processing locations. It will also inhibit stray mists and to provide drip resistance.

COMPOSITION:

The active ingredient in **FUNCTIONAL V-584** is a polymer that provides tackiness and thickening. This polymer is itself not readily biodegradable, but permits the formulation of tacky lubricants from biodegradable base oil systems. The diluent oil in **FUNCTIONAL V-584** is a biodegradable vegetable oil.

Typical Properties	
Specific Gravity	0.93
Lbs per Gallon	7.75
Flash Point	150 °C (300 °F)
Kinematic Viscosity	2000 - 3000 cSt at 40 °C
Thickening efficiency	55 - 70 cSt @ 40 °C (10% in canola oil)
Color	hazy yellow or orange

TREATMENT LEVEL:

A treatment level as low as 1% will provide tackiness in a vegetable oil. About 5% will bring a vegetable oil to ISO 46 and 10% to ISO 68. (Due to its high viscosity index, a fatty-derived ISO 46 product may actually have a higher viscosity at 100 °C than many ISO 100 petroleum-based products.) The slight residual haze in these higher-viscosity blends does not affect performance. Between 0.2% and 1.0% of **FUNCTIONAL PD-551** can inhibit the freezing of the base oil, extending downward the temperature range of the lubricant. Minimization of hydrocarbon aerosol escape from mist-lubricated and pneumatic equipment requires up to about 1%. Since there are no standardized test methods for tackiness or stray-mist inhibition, the treatment level is best determined by experimentation by the user.

HANDLING:

While warming **FUNCTIONAL V-584** to about 50 °C (120 °F) may facilitate pumping and handling, extended storage of this or any other vegetable oil- derived product at elevated temperatures is not recommended. For best tackiness retention, do not warm above about 65 °C (150 °F). Safe handling precautions are the same as those to be taken with vegetable oils; see the current MSDS. The tackiness of products made from any tackifier may be somewhat lessened by shear, so mechanical shearing during blending and handling should be minimized. **FUNCTIONAL V-584** may separate slightly upon standing. To maintain integrity of the product, mix well before using.



Nonfood Compounds
Program Listed
Category Codes: HX-1 and HX-2
Registration No. 120913

This Technical Data Sheet and the Material 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.

5/7/2008