

FUNCTIONAL V-570 TACKIFIER for FATTY OIL BASED LUBRICANTS

APPLICATION:

FUNCTIONAL V-570 is an additive that confers a tack or stringiness to lubricants made from vegetable-based or animal-based fatty oils. It is principally used to provide adherence in saw-chain and saw-guide oils in environmentally sensitive locations, or to prevent product contamination by petroleum products. It may also be used to inhibit stray mists, or to provide drip resistance in other products. **FUNCTIONAL V-570** may also be used to provide thickening and tack in oils that contain high levels of fatty additives, such as in cutting oils. For tackifying vegetable-oil based single use lubricants **FUNCTIONAL V-584** may be used at lower treatment level.

COMPOSITION:

The active ingredient in **FUNCTIONAL V-570** 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-570** is a biodegradable vegetable oil.

Typical Properties	
Specific Gravity	0.93
Lbs per Gallon	7.75
Flash Point	150°C (300°F)
Kinematic Viscosity	7,000-9,000 cSt at 100°C
Color	yellow-orange (<4 ASTM)
Biodegradability	approx. 90% readily biodegradable

TREATMENT LEVEL:

The typical treatment level for a chain lube is 3 - 7%. This level will bring a vegetable oil to ISO 46 or 68 good viscosities for all weather saw chain oils in most climates. (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.) A treatment of 7% will produce a very tacky ISO 68. 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 chain saw oil. Minimization of hydrocarbon aerosol escape from mist-lubricated and pneumatic equipment requires about 1.0%. Since there are no standardized test methods for tackiness or stray-mist inhibition, the required treatment level is best determined by experimentation.

HANDLING:

While warming **FUNCTIONAL V-570** 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 Material Safety Data Sheet. The tackiness of products made from any tackifier may be somewhat lessened by shear, so mechanical shearing during blending and handling should be minimized.

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.

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