

### FUNCTIONAL HF-560

#### ADDITIVE FOR BIODEGRADABLE HYDRAULIC FLUID

##### APPLICATION:

**FUNCTIONAL HF-560** is an additive package for making Military specification MIL-PRF-32073 type hydraulic fluids based in biodegradable esters or vegetable oils. **FUNCTIONAL HF-560** provides oxidation and corrosion protection, extreme-pressure / anti-wear activity, foam resistance, and resistance to water. We recommend using high-oleic version of the vegetable oils to pass the Military oxidation requirement.

##### COMPOSITION:

**FUNCTIONAL HF-560** is a mixture of oxidation, wear, foam, and both ferrous and non-ferrous corrosion inhibitors as well as demulsifiers, designed to give optimum performance in biodegradable esters and vegetable oils.

Typical properties	
Appearance	Amber hazy liquid
Odor	Mild sweet
Specific Gravity	0.96
Lbs per Gallon	8.0
Flash Point	112°C (234°F)
Kinematic Viscosity	131 cSt at 40°C

##### TREATMENT LEVEL:

**FUNCTIONAL HF-560** is used at 1.9% by weight in a suitable biodegradable base stock in combination with 0.5 – 1.0% PD-551 (for low temperature stability) to produce a biodegradable hydraulic fluid. The viscosity of the hydraulic fluid may be raised to ISO 46 or ISO 68 with a thickener such as **FUNCTIONAL V-516**. Mill-PRF-32073 Grades 3 and below may require a partial or full synthetic base stock to pass the low temperature requirements.

##### HANDLING:

Use normal safe procedures for handling or blending **FUNCTIONAL HF-560**. Heating before blending is not required. Review the current Safety Data Sheet before using.

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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