# FUNCTIONAL PRODUCTS INC.

**Innovative Chemistry for Lubricants** 

### **Technical Data Sheet**

# **FUNCTIONAL V-830**

## Powder Form Thickener for Glycol- or Water-based Lubricants

#### **APPLICATION:**

**FUNCTIONAL V-830** is a unique water soluble polymer which is also compatible in many pure glycols. This polymer is used to increase the viscosity of glycol- or water-based products including lubricants, coolants, and emulsions. For best results, use distilled water when water is required.

#### **COMPOSITION:**

The active ingredient in **FUNCTIONAL V-830** is a non-ionic water-soluble polymer.

Typical properties								
Appearance (Visual)	White to Off-White Powder							
Bulk Density (g/mL)	0.3 - 0.4							
Specific Gravity (g/mL)	1.2							
Thickening Efficiency, 10wt% in water	160 - 180 cSt @ 40°C							

#### TREATMENT LEVEL:

Typical treat levels range from 1 to 10wt%. **FUNCTIONAL V-830** is soluble in water, glycols (including propylene and hexylene glycol), polyols, glycerol, and low molecular weight polyethylene glycols (PEG). Treat rates in water are shown below. The higher viscosity of glycols can substantially reduce the treat rate of **FUNCTIONAL V-830** from those demonstrated in pure water.

Typical Treat Rates of FUNCTIONAL V-830 in Water for ISO 22 - 460

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ISO '							150			
wt%	V-830	4.5	5.5	6.5	7.5	8.5	9.5	11	12	13

#### **HANDLING:**

**FUNCTIONAL V-830** is a powder. Replace container lid tightly after use to avoid moisture/water contamination. Solutions should be prepared by adding the polymer as a slow feed to a stirred solution at room temperature. This process may take 4-16 hours depending on concentration. Use appropriate methods to minimize evaporation of water during processing.

**FUNCTIONAL V-830** has a shelf life of 1 year. 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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