

### 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

ISO VG	22	32	46	68	100	150	220	320	460
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.