# **FUNCTIONAL V-4004A** MULTIFUNCTIONAL LIQUID POLYMER FOR GREASES

## **APPLICATION:**

**FUNCTIONAL V-4004A** is a multifunctional polymer specifically designed for use in greases to improve water resistance and mechanical stability. Its liquid form allows quick incorporation into grease without long dissolving process. It can be added to grease in the final – finishing stage. **FUNCTIONAL V-4004A** also increases the tackiness of the grease and reduces the soap content (higher yields).

## **COMPOSITION:**

**FUNCTIONAL V-4004A** is a hydrocarbon polymer diluted in light-colored naphthenic oil that does not require hazard labeling. It is chemically different from motor oil V.I. improver polymers in its monomer content.

Typical properties	
Specific Gravity (ASTM D1298)	0.88
Lbs per Gallon (TM-04)	7.30
Flash Point (ASTM D92)	>130°C (270°F)
Kinematic Viscosity (ASTM D445)	500 – 800 cSt at 100°C
Color (ASTM D1500)	< 4 (yellow-orange)

#### **TREATMENT LEVEL:**

Typical treatment level of 1.0 - 5.0% by weight is used in greases to confer water resistance and mechanical stability. The required concentration is best determined by formulator through experimentation by the user.

## HANDLING:

Due to the high viscosity of **FUNCTIONAL V-4004A**, elevated temperature about 150°F (65°C) can facilitate handling, but temperatures over 200°F (95°C) should be avoided. Safe handling precautions are the same as those to be taken with the base oil; see the current Safety Data Sheet. The tackiness of the resulting lubricant can be lessened by shearing, so mechanical shearing during blending and handling should be minimized.

Issued: 11/25/14

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.