# FUNCTIONAL PRODUCTS INC.

**Innovative Chemistry for Lubricants** 

## **Technical Data Sheet**

# **FUNCTIONAL V-4700**

### LIQUID REACTIVE POLYMER FOR SYNTHETIC-BASED GREASES

#### **APPLICATION:**

**FUNCTIONAL V-4700** is a liquid multifunctional polymer specially designed for greases based in high viscosity synthetics (polybutene, mPAO, EPO) which cannot dissolve most other grease polymers such as **FUNCTIONAL V-207** olefin copolymer crumb or **FUNCTIONAL V-4028** reactive grease pellet.

**FUNCTIONAL V-4700**'s liquid form allows quick incorporation into grease without a long dissolving process. It can be added to grease with cooling oil. **FUNCTIONAL V-4700** improves water washout, mechanical stability, and consistency of soap-based greases.

#### **COMPOSITION:**

FUNCTIONAL V-4700 is pure grafted hydrocarbon polymer.

Typical properties	
Specific Gravity	0.910 - 0.923
Lbs per Gallon	7.6 – 7.7
Flash Point (ASTM D92, Open Cup)	>150°C (302°F)
Typical Viscosity (ASTM D445)	9000 - 11000 cSt @ 100°C
	180,000 – 220,000 @ 40°C
Typical Viscosity Index (ASTM D2270)	405
Pour Point (ASTM D97)	0°C / 32°F
Color (ASTM D1500)	< 0.5 (colorless, clear)
Viscosity at 5wt% in Base Oil, 40°C (ASTM D445)	805 cSt in 150 Bright Stock
	1174 cSt in mPAO 100

#### TREATMENT LEVEL:

Typical treatment level of 2.0 - 6.0% 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:**

Store at room temperature. Due to the high viscosity of **FUNCTIONAL V-4700**, pre-heating to about 150°F (65°C) prior to using can facilitate handling and pouring but temperatures over 200°F (95°C) should be avoided.

Safe handling precautions are same as the base oil; 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.