

### FUNCTIONAL V-191M TACKIFIER FOR GREASES (IN EMULSION FORM)

#### APPLICATION:

**FUNCTIONAL V-191M** is a tackifier for use in both mineral oil and biobased greases. As an emulsion, the high active polymer level results in a modest viscosity compared to solutions of tackifier polymers in oil. **FUNCTIONAL V-191M** is best used in those greases that are either made with water or where water is formed as a by-product of soap formation. **FUNCTIONAL V-191M** differs from other emulsion based tackifiers (including **FUNCTIONAL V-191**) in that it is more resistant to “clotting” during its use in blending a grease.

#### COMPOSITION:

The active polymeric ingredient in **FUNCTIONAL V-191M** is a hydrocarbon having very high molecular weight.

Typical Properties	
Appearance:	White liquid
Odor:	Slight ammonia
Specific Gravity:	0.95
Pounds per Gallon:	7.9
pH:	10.0

#### TREATMENT LEVEL:

A typical treatment range of 0.5 - 2.0% is used in greases to provide enhanced water resistance and tackiness. We recommend adding **FUNCTIONAL V-191M** as late in the grease making process as possible, preferably after milling if the water can be tolerated or removed from the grease.

#### HANDLING:

Mix well before using as components will separate during storage. Separation does not affect the performance of the product. **FUNCTIONAL V-191M** is subject to freezing at temperatures below the freezing point of water. Freezing must be prevented, to avoid irreversibly breaking the emulsion. We strongly recommend storing the product above 5°C (40°F) and to clean and tightly reseal the container after opening. Do not allow the container to be open to air for long periods of time. The vapor space above **FUNCTIONAL V-191M** contains ammonia, and drums or other containers should be opened with care to avoid inhaling ammonia. Refer to 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.

Issued: 07/29/2015