

# FUNCTIONAL PRODUCTS INC.

Innovative Chemistry for Lubricants

## Technical Data Sheet

### FUNCTIONAL V-191

#### EMULSION FORM TACKIFIER FOR GREASES

##### Application:

**FUNCTIONAL V-191** is a tackifier for use in greases, including calcium sulfonate. **FUNCTIONAL V-191** has a modest viscosity compared to solutions of tackifier polymers in oil. **FUNCTIONAL V-191** is recommended for use in greases that are made with water or where water is formed as a by-product of soap formation.

##### Composition:

The active ingredient in **FUNCTIONAL V-191** is a high molecular weight hydrocarbon polymer. The emulsifying package contains detergents and dispersants in ammonium salt form as a stabilizer.

Typical properties	
Appearance	White liquid
Odor	Ammonia
Specific Gravity (ASTM D1298)	0.96
Lbs per Gallon	8.0
pH	10.0

##### Treatment Level:

Typical treatment range of 0.5 - 2.0% is used to provide cling and tack in greases.

##### Handling:

Add **FUNCTIONAL V-191** as late in the grease making process as possible, preferably after milling, if water can be tolerated in the finished product. **FUNCTIONAL V-191** contains ammonia, and drums or other containers should be opened with care to avoid inhaling ammonia vapor. Refer to the current Safety Data Sheet.

##### Storage:

Drums of **FUNCTIONAL V-191** may be stored 6 months under proper conditions in tightly sealed container to minimize evaporation which may adversely affect dispersability in greases. **FUNCTIONAL V-191** is subject to freezing at 0°C. Freezing must be prevented to avoid irreversibly breaking the emulsion. Recommended storage temperature is above 5°C (40°F). Soft settling may be removed by stirring.

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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.