

CHEMGUARD S-500 High Performance Amphoteric Fluorosurfactant

Description

CHEMGUARD S-500 High Performance Amphoteric Fluorosurfactant is highly efficient and provides surface tensions as low as 16 dyn/cm in water at very low concentrations.

CHEMGUARD S-500 imparts enhanced wetting, spreading, leveling, and flow control properties on various types of water-based and solvent-based systems. It is ideal for coating formulations designed to coat difficult substrates because of its extremely low equilibrium surface tension and excellent dynamic surface tension properties.

Because of its amphoteric nature, CHEMGUARD S-500 is unsusceptible to the differences in pH which provides excellent hard water resistance.

Features

CHEMGUARD S-500 High Performance Amphoteric Fluorosurfactant offers the following features:

- Delivers low surface tension at low concentrations
- Effective at wetting difficult to coat surfaces
- Provides excellent hard water resistance
- Performs in water-based and solvent-based systems

Typical Properties

Appearance	Clear, amber liquid		
Ionic Character	Amphoteric		
Percent Actives	27%		
Diluent Composition	Water, diethylene glycol monobutyl ether, propylene glycol		
Density 25 °C (77 °F).....	1.2 g/ml		
pH.....	6.5 - 8.0		
Flash Point	> 95 °C (> 203 °F) (Pensky-Martens, closed cup)		
Freezing Point	10 °C (50 °F)		
Refractive Index	1.3700 - 1.4000 at 25 °C (77 °F)		
Viscosity	14.0 cP		
Aqueous Surface Tension in Deionized Water, 25 °C (77 °F)			
Actives.....	0.001%	0.01%	0.1%
dyn/cm (mN/m)	32	18	16

Note: Typical Properties are not for specification purposes.

Application

CHEMGUARD S-500 High Performance Amphoteric Fluorosurfactant is a dilute solution composed of 27% active fluorosurfactant in a water and solvent-miscible diluent. Typical uses include leveling and surface tension reducing agents for floor care applications, paints and coatings, industrial and institutional cleaners, and oilfield operations.

CHEMGUARD S-500 is generally employed when typical hydrocarbon surfactants are inadequate, particularly in the presence of acids, alkalies, or heat.

Recommended application rates depend on the formulation makeup, but typical levels of 0.05% to 0.40% are common. To determine the correct application rate level, screen several ranges of concentration to achieve the desired effect on the surface tension and wetting action.

Solubility

CHEMGUARD S-500 High Performance Amphoteric Fluorosurfactant is soluble in water and most organic solvents.

Storage and Shelf Life

Store CHEMGUARD S-500 High Performance Amphoteric Fluorosurfactant between 10 °C and 50 °C (50 °F and 122 °F). If the agent is frozen or if solids separate, warm the agent to room temperature before use. The properties and performance of CHEMGUARD S-500 are not affected by freezing or thawing. Shelf life is two years if the agent is stored and tightly sealed in the original container at temperatures below 50 °C (122 °F).

Health and Safety

CHEMGUARD S-500 High Performance Amphoteric Fluorosurfactant is not recommended for use in applications involving repeated exposure to skin contact, inhalation, or ingestion.

CHEMGUARD fluorosurfactants are based on the telomer synthesis process and are composed of chains of six fluorinated carbons. The telomer process produces no perfluorooctane sulfonate (PFOS), and C6 materials do not break down to yield perfluorooctanoic acid (PFOA).

Refer to the safety data sheet (SDS), available at www.chemguard.com, for recommended disposal, handling, and protection information.

Note: The converted values in this document are provided for dimensional reference only and do not reflect an actual measurement.

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