

CHEMGUARD S-103A-6 High Performance Anionic Fluorosurfactant

Description

CHEMGUARD S-103A-6 High Performance Anionic Fluorosurfactant is an alkyl sodium sulfonate type fluorosurfactant. It provides surface tensions as low as 20 dyn/cm in water at very low concentrations.

CHEMGUARD S-103A-6 imparts enhanced wetting, spreading, leveling, and flow control properties on various types of water-based and aqueous hydrocarbon surfactant solutions. 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.

Features

CHEMGUARD S-103A-6 High Performance Anionic Fluorosurfactant offers the following features:

- Delivers low surface tension at low concentrations
- Effective at wetting difficult to coat surfaces
- Provides hard water resistance
- Performs in water-based and hydrocarbon surfactant systems
- Creates stable and high-quality foams, even at low concentrations

Typical Properties

Appearance	Clear, pale yellow liquid		
Ionic Character	Anionic		
Percent Actives	45%		
Diluent Composition	Water, hexylene glycol		
Density 25 °C (77 °F).....	1.2 g/ml		
pH.....	6.0 - 7.6		
Flash Point.....	> 95 °C (> 203 °F) (Pensky-Martens, closed cup)		
Freezing Point	- 6 °C (21 °F)		
Refractive Index at 25 °C (77 °F).....	1.3910 - 1.3970		
Viscosity	100 cP		
Aqueous Surface Tension			
in Deionized Water, 25 °C (77 °F)			
Actives.....	0.001%	0.01%	0.1%
dyn/cm (mN/m)	50	40	20

Note: Typical Properties are not for specification purposes

Application

CHEMGUARD S-103A-6 High Performance Anionic Fluorosurfactant is a dilute solution composed of 45% active fluorosurfactant in a water and solvent-miscible diluent. Typical uses include leveling and surface tension reducing agents for paints and coatings, industrial and institutional cleaners, oilfield operations, adhesives, inks, and plating baths.

The application of CHEMGUARD S-103A-6 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 0.01% to 0.50% 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-103A-6 High Performance Anionic Fluorosurfactant is soluble in water and most organic solvents.

Storage and Shelf Life

Store CHEMGUARD S-103A-6 High Performance Anionic 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-103A-6 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-103A-6 High Performance Anionic 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.

CHEMGUARD and the product names listed in this material are marks and/or registered marks. Unauthorized use is strictly prohibited.

