

## CHEMGUARD S-550 High Performance Nonionic Fluorosurfactant

### Description

CHEMGUARD S-550 High Performance Nonionic Fluorosurfactant is an ethoxylated nonionic fluorosurfactant. It provides surface tensions as low as 17 dyn/cm in water at low concentrations, and is surface active in many other solvents.

CHEMGUARD S-550 imparts enhanced wetting, spreading, leveling, and flow control properties to various types of water-based and solvent-based formulations. 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-550 High Performance Nonionic Fluorosurfactant offers the following features:

- Non-flammable
- Delivers low surface tension at low concentrations
- Effective at wetting difficult to coat surfaces
- Performs in water-based and solvent-based systems
- Improves leveling performance

### Typical Properties

Property	Description
Appearance .....	Clear, pale yellow liquid
Ionic Character .....	Nonionic
Percent Actives .....	50 %
Diluent Composition .....	Water, dipropylene glycol methyl ether
Density 25 °C (77 °F).....	1.2 g/ml
pH.....	4.5 - 7.5
Flash Point.....	> 95 °C (> 203 °F) (Pensky-Martens, closed cup)
Freezing Point .....	-30 °C (-22 °F)
Refractive Index at 25 °C (77 °F).....	1.3900 - 1.3930
Viscosity .....	28.0 cP
Aqueous Surface Tension in Deionized Water, 25 °C (77 °F)	
Actives.....	0.001%    0.01%    0.1%
dyn/cm (mN/m) .....	30            18            17

**Note:** Typical Properties are not for specification purposes.

### Application

CHEMGUARD S-550 High Performance Nonionic Fluorosurfactant is a dilute solution composed of 50% 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, inks, industrial and institutional cleaners, and oilfield operations.

CHEMGUARD S-550 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 0.30% 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-550 High Performance Nonionic Fluorosurfactant is sparingly soluble in water and most organic solvents.

### Storage and Shelf Life

Store the CHEMGUARD S-550 High Performance Nonionic 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-550 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-550 High Performance Nonionic 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](http://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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