

## CHEMGUARD S-559 High Performance Nonionic Fluorosurfactant

### Description

CHEMGUARD S-559 High Performance Nonionic Fluorosurfactant is an ethoxylated nonionic fluorosurfactant. It provides surface tensions as low as 20 dyn/cm in water at low concentrations and is surface active in many other solvents.

CHEMGUARD S-559 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.

### Features

CHEMGUARD S-559 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

Appearance .....	Clear, pale yellow liquid		
Ionic Character .....	Nonionic		
Percent Actives .....	40%		
Diluent Composition .....	Water, dipropylene glycol methyl ether		
Density 25 °C (77 °F).....	1.1 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).....	1.3970 - 1.3990		
Viscosity .....	24.0 cP		
Aqueous Surface Tension in Deionized Water, 25 °C (77 °F)			
Actives.....	0.001%	0.01%	0.1%
dyn/cm (mN/m) .....	34	23	20

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

### Application

CHEMGUARD S-559 High Performance Nonionic Fluorosurfactant is a dilute solution composed of 40% 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.

The application of CHEMGUARD S-559 is generally employed when typical hydrocarbon surfactants are inadequate.

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-559 High Performance Nonionic Fluorosurfactant is soluble in water and most organic solvents.

### Storage and Shelf Life

Store CHEMGUARD S-559 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-559 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-559 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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