



CHEMGUARD S-300

High Performance Fluorinated Acrylic Polymer

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Product Description

CHEMGUARD S-300 is a partially fluorinated acrylic polymer. It provides exceptional oil, water, alcohol and soil repellency. It has wide application in protecting fabrics, carpets, wood, concrete, tile stone, and as a grout sealer. S-300 also finds use in the oil field industry due to its ability to foam hydrocarbons such as kerosene, diesel, fuel, crude oil, and condensate.

Chemguard S-300

- Exceptional Oil, Water, Alcohol and Soil Repellency
- Excellent foaming ability in hydrocarbons.
- If replacing another product, begin evaluating at the same concentration and either increase or decrease until the desired performance is obtained.
- Excellent replacement for **FSG**

Typical Properties¹

Appearance	Clear, light yellow liquid
Ionic Character	Nonionic
Composition	Approx. 23% actives, 77% Isoparaffinic hydrocarbon
Density	0.84 g/ml at 25°C
Flash Point	40°C, TCC
Odor	Mild
Boiling point	320°C

¹ Not for specification purposes.

Solubility

Chemguard S-300 is soluble in hydrocarbons and most organic solvents. The chart below is an example of the solubility of S-300 in many solvent systems. Chemguard can assist in determining solubility in any system.

Solvent	Grams of Chemguard S-300/ 100 grams of solvent
Distilled Water	Insoluble
Isopropanol	>30
Kerosene	>30
Diesel Fuel	>30
Crude oil	>30
Butyl carbitol ¹	>30

All values measured at 25°C

¹ Trademark of Union Carbide Corporation

Performance:

Chemguard S-300 was evaluated as a fabric protector. A solution of 5% S-300 in mineral spirits was sprayed on a variety of fabrics. Application rates were between 1.0 and 1.5 fluid ounces per square yard of material which was sufficient to wet the fabric. They were then allowed to dry and cure for 24 hours. Water and alcohol repellency and oil repellency were tested using the drop test method.

Water/Alcohol Repellency Drop Test:

Repellency was measured by applying 3 drops of the test liquid and observing wetting of the surfaces. If the drops were repelled for longer than 10 seconds, the surface was judged to be repellent to that liquid. All fabrics repelled 100% isopropyl alcohol.

Oil Repellency Drop Test (AATCC Test Method 118-1989):

Repellency was measured by applying 3 drops of the test liquid and observing wetting of the surfaces. If the drops were repelled for longer than 30 seconds, the surface was judged to be repellent to that liquid. The liquids tested ranged from mineral oil (1 rating) to decane (6 rating). The higher the number, the more repellent the surface.

All fabrics repelled at least a 4 oil rating with an average of all surfaces tested of 5.2.

Storage and Shelf Life

Chemguard S-300 should be stored between 10°C and 50°C. S-300 begins to gel at temperatures below -13°C over time. If frozen or if solids separate, warm to room temperature before use. Freezing and thawing will not affect the properties or performance.

Shelf life is at least one year if stored tightly sealed in the original container at temperatures below 50°C (151°F).

Health and Safety

Chemguard does not recommend this product for use in applications involving repeated exposure to skin contact, inhalation, or ingestion. This product is not intended to be used for medical, cosmetic, food or pharmaceutical applications.

All perfluoro-intermediates are derived from the telomerization process.

Please refer to the material safety data sheet (MSDS) for recommended disposal, handling, and protection information.

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