



CHEMGUARD S-761P

High Performance Anionic Fluorosurfactant

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Product Description

Chemguard S-761P is a short-chain perfluoro-based anionic fluorosurfactant of the phosphate ester type. It provides surface tensions as low as 16 dynes/cm in water at very low concentrations. It also has excellent dynamic surface tension properties, allowing for rapid attainment of low equilibrium surface tensions. Chemguard S-761P imparts excellent wetting, spreading, leveling, and flow control properties on various types of water-based coatings for architectural paints and stains, concrete coatings, industrial coatings as well as aqueous hydrocarbon surfactant solutions. Chemguard S-761P is low foaming and can provide improved dirt pick-up resistance to exterior paints and interior low gloss paints, sealers, and stains.

Attributes

- Provides low surface tension at low concentrations
- Excellent for wetting contaminated or difficult to coat surfaces
- Minimizes surface defects such as cratering and fisheyes
- Imparts excellent anti-blocking characteristics
- Provides oil repellency to water-based stains
- Excellent replacement for **9361 and Capstone FS-63**
- Composed of short chain C-6 perfluoro telomer

Typical Properties¹

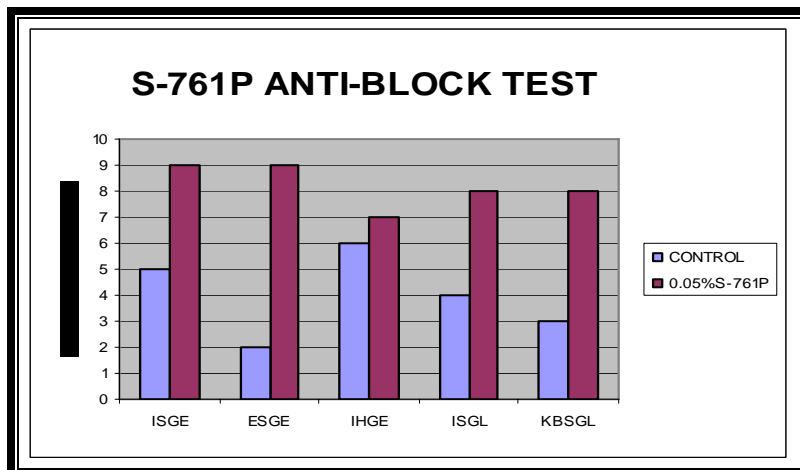
| | | |
|---|---|--------|
| Appearance | Clear, colorless liquid | |
| Ionic Character | Anionic | |
| Percent Solids (Actives) | 34% | |
| Diluent Composition | Water/Isopropanol | |
| Density (25°C) | 1.1 g/ml | |
| Flash Point (Pensky-Martens, closed cup) | 31°C | |
| pH | 7-9 | |
| Freezing Point | -15°C (5°F) | |
| Aqueous Surface Tension dynes/cm (mN/m), 25°C (77°F) | 0.001% Solids | 28 |
| | 0.01% Solids | 17 |
| | 0.1% Solids | 15.5 |
| | CMC (critical micelle concentration) | 0.014% |

¹Not for specification purposes.

Typical Applications

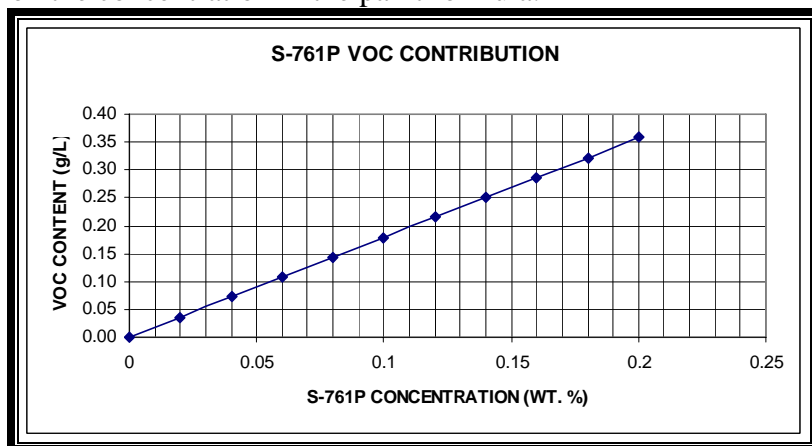
Chemguard S-761P is a dilute solution composed of 34% actives fluorosurfactant in a water and solvent miscible diluent. Typical uses include leveling and oil repellency for floor polishes, paints and coatings, adhesives, inks, waxes, caulks, and wood stains. Chemguard S-761P can minimize common surface defects in paints and coatings such as fisheyes, orange peel effects and cratering.

Chemguard S-761P is also very effective in improving anti-blocking for the new low/no VOC paints in both semi-gloss and high gloss formulas. The table below highlights typical results when S-761P is incorporated at levels as low as 0.05% by weight (full report available upon request).

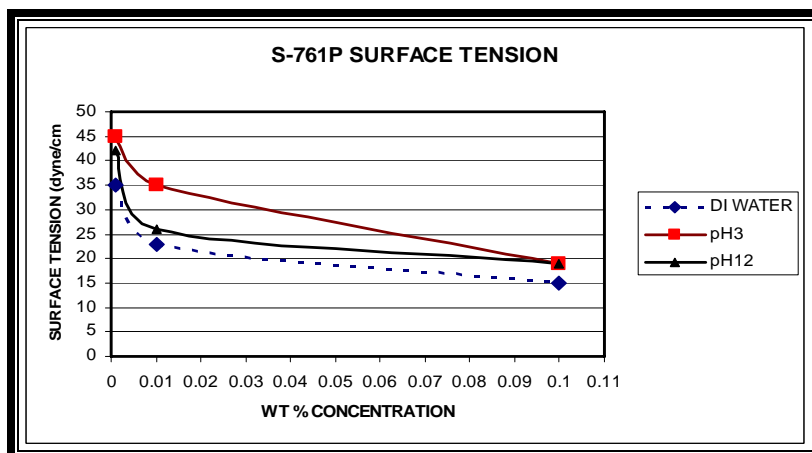


ISGE- Interior Semi-Gloss Enamel, ESGE- Exterior Semi-Gloss Enamel, IHGE- Interior High Gloss Enamel
 ISGL- Interior Semi-Gloss Latex, KBSGL- Kitchen and Bath Semi-Gloss Latex

Although S-761P contains 15% VOC's, the use of S-761P in low/no VOC paints will not contribute substantially to the total VOC content of the paint. The chart below highlights the VOC contribution of S-761P based on the concentration in the paint formula.



Chemguard S-761P is effective in a wide range of pH systems. The charts below will aid in determining the amount of Chemguard S-761P that is required for a targeted level of active surfactant concentration to achieve the degree of surface tension reduction.



Recommended application rates depend on the formulation makeup but typical levels of 0.01% to 0.2% are common. The ideal method for determining the proper level is to screen several ranges of concentrations to achieve the desired effect on the surface tension and wetting action.

Applications of Chemguard S-761P are generally those in which typical hydrocarbon surfactants are found to be inadequate.

Fluorosurfactants such as Chemguard S-761P are much more chemically stable than typical hydrocarbon surfactants, particularly in the presence of acids, alkalies, or heat.

Solubility

Chemguard S-761P is soluble in water and most organic solvents. The chart below is an example of the solubility of S-761P in many solvent systems. Chemguard can assist in determining solubility in any system.

| Solvent | Grams of Chemguard S-761P/ 100 grams of solvent |
|-----------------------------|--|
| Distilled Water | >1 |
| Isopropanol | >1 |
| Acetone | 0.1 |
| Methyl Alcohol | >2 |
| Hydrocarbon solvents | Insoluble |

All values measured at 25°C

Storage and Shelf Life

Chemguard S-761P should be stored between 10°C and 50°C. Some solids begin to separate at temperatures below -15°C (2°F) 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 five years if stored tightly sealed in the original container at temperatures below 50°C (151°F).

Availability

Chemguard S-761P is available in 1 oz samples, 40 lb. pails, and 440 lb. drums.

Health and Safety

Chemguard does not recommend this product for use in applications involving repeated exposure to skin contact, inhalation, or ingestion.

Chemguard fluorosurfactants are based on telomer synthesis. No PFOS, no PFOA, and no derivatives that decompose to them are used in the manufacturing process. Chemguard S-761P is composed of predominately six carbon (greater than 98%) and shorter perfluoro chains with no known pathway of decomposing to PFOS or PFOA.

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

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