



CHEMGUARD S-764P

VOC*-Free Anionic Fluorosurfactant

CHEMGUARD 204 South 6th Ave. Mansfield, Texas 76463 USA • 817-473-9964 • Fax: 817-473-0606 • www.chemguard.com

Product Description

Chemguard S-764P is a VOC-free, water-based, short-chain fluorosurfactant of the phosphate ester type. It provides surface tensions as low as 17 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-764P 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-764P is low foaming and can provide improved dirt pick-up resistance to exterior paints and interior low gloss paints, sealers, and stains.

Attributes

- VOC-Free
- Chloride-Free
- Low Foaming
- Imparts excellent anti-blocking characteristics
- Provides low surface tension at low concentrations
- Excellent for wetting contaminated or difficult to coat surfaces
- Minimizes surface defects such as cratering and fisheyes
- Provides oil repellency to water-based stains
- Excellent replacement for **FS-610, 8952, FS-61, ST-300, FS-64, and FS-65**
- Composed of short chain C-6 perfluoro telomer

Typical Properties¹

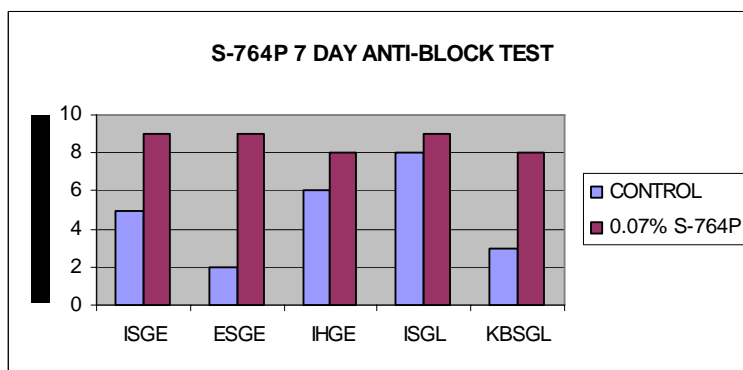
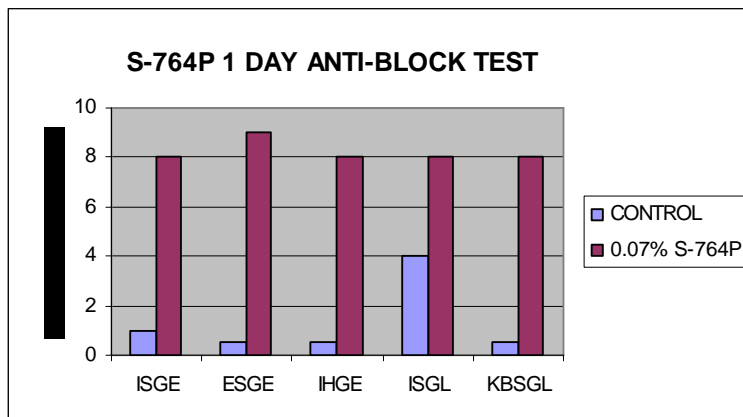
Appearance	Clear, colorless thin gel	
Ionic Character	Anionic	
Percent Actives	22%	
Chloride Content	<50ppm	
Density (25°C)	1.1 g/ml	
Flash Point (Pensky-Martens, closed cup)	Non-Flammable	
pH	7.0-8.0	
Aqueous Surface Tension dynes/cm (mN/m), 25°C (77°F)	0.001% Actives	30
	0.01% Actives	19
	0.1% Actives	17
	CMC (critical micelle concentration)	0.012%

¹Not for specification purposes.

Typical Applications

Chemguard S-764P is a dilute aqueous solution composed of 22% active fluorosurfactant. Typical uses include leveling and oil repellency for floor polishes, paints and coatings, adhesives, inks, waxes, caulks, and wood stains and it is ideal for Low-

VOC and VOC-free formulas. Chemguard S-764P can minimize common surface defects in paints and coatings such as fisheyes, orange peel effects and cratering. Chemguard S-764P is also very effective in improving anti-blocking for the new low/no VOC paints in both semi-gloss and high gloss formulas. The tables below highlight typical results when S-764P is incorporated at levels as low as 0.07% by weight (full report available upon request)



PAINT TYPE	CODE	VOC CONTENT (g/L)
Interior Semi-gloss Enamel	ISGE	<50
Exterior Semi-gloss Enamel	ESGE	<50
Interior High Gloss Enamel	IHGE	<50
Interior Semi-gloss Latex	ISGL	0
Kitchen and Bath Semi-gloss Latex	KBSGL	0

Applications of Chemguard S-764P are generally those in which typical hydrocarbon surfactants are found to be inadequate. Fluorosurfactants such as Chemguard S-764P are much more chemically stable than typical hydrocarbon surfactants, particularly in the presence of acids, alkalis, or heat.

Recommended application rates depend on the formulation makeup but typical levels of 0.05% 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.

Solubility

Chemguard S-764P is soluble in water and most organic solvents. Deionized or soft water is recommended as dilution of this product in hard water can cause precipitation and should be avoided. The use of a chelant is recommended if the water hardness exceeds 100 ppm. The chart below is an example of the solubility of S-764P in many solvent systems. Chemguard can assist in determining solubility in any system.

Solvent	Grams of Chemguard S-764P/ 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

Avoid freezing. Mix well before using. Chemguard S-764P should be stored between 5°C and 50°C. If frozen or if solids separate, warm to room temperature and mix 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 (122°F).

Availability

Chemguard S-764P is available in 2 oz samples, 8 lb jugs, 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-764P 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.

*VOC stands for "Volatile Organic Compound" and is any organic compound (all chemical compounds containing carbon with exceptions) that is volatile (evaporating or vaporizing readily under normal conditions).

SELLER MAKES NO REPRESENTATION OR WARRANTY, EXPRESSED OR IMPLIED, INCLUDING MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. No statements herein are to be construed as inducements to infringe upon a relevant patent. Under no circumstances shall the Seller be liable for incidental, consequential or indirect damages for negligence, breach of warranty, strict liability, tort or contract arising in connection with the product(s). Buyer's sole remedy and Seller's sole liability for any claims shall be Buyer's purchase price. Data and results are based on controlled or lab work and must be confirmed by Buyer by testing for its intended conditions of use.