



FLUROSURFACTANTS FLUOROPOLYMERS

An extensive line of high-performance fluorosurfactants.

- Innovative short-chain chemistry
- Proven superior performance
- High purity
- Excellent fluorine efficiency
- Broad environmental capability
- Customized product and application formulation

Paints

Multi-functional Chemguard fluorosurfactants reduce surface tension, improving wetting, flow, and leveling on contaminated surfaces and low-energy substrates. Fluorosurfactants can reduce foam, improve open time, gloss, blocking and impart resistance to dirt pick-up at low concentration. The addition of Chemguard fluorosurfactants reduces orange-peel effect and cratering. In many instances, the use of fluorosurfactants reduces or even replaces multiple ingredients and achieves improved results. The low concentrations required reduce surfactant interferences with critical properties of paints

Wood Stains and Sealers

Chemguard fluorosurfactants are effective in wetting soiled or contaminated surfaces, including new wood with a difficult-to-penetrate surface due to improper curing or drying. The addition of fluorosurfactants can allow wood to be used without additional drying times or costs. Using Chemguard fluorosurfactants in stains can eliminate voids and surface defects caused by entrapped bubbles during mixing application. Formulation costs can be reduced due to improved pore penetration, which allows lower application rates and reduces waste.

Caulks

Chemguard fluorosurfactants improve UV stability, enhance anti-soiling, and improve the durability of caulks. The fluorosurfactants improve bond strength by increasing pore penetration, which increases the total surface area in contact with the caulk. Fluorosurfactants also increase open time in certain formulations, creating a wider application window without slowing curing. The addition of fluorosurfactants can also eliminate silicone bleeding. For non-aqueous formulations, select Chemguard S-554-100.

Adhesives

Chemguard fluorosurfactants are effective in wetting soiled or contaminated surfaces, including new wood with a difficult-to-penetrate surface due to improper curing or drying. The addition of fluorosurfactants can allow wood to be used without additional drying times or costs. Using Chemguard fluorosurfactants in stains can eliminate voids and surface defects caused by entrapped bubbles during mixing application. Formulation costs can be reduced due to improved pore penetration, which allows lower application rates and reduces waste.

Waxes

Chemguard fluorosurfactants effectively maximize wetting power to produce uniform film formation, improved gloss, and excellent recoat performance. Many fluorosurfactants are low foaming for smooth, void-free finishes and reduced orange-peel effect. Waxes formulated with Chemguard fluorosurfactants can give excellent results when applied to surfaces that are not perfectly cleaned. Available for both water-based and solvent-based systems.

Polishes

In polishes, Chemguard fluorosurfactants give uniform film formation, improved gloss, and excellent recoat performance by effectively maximizing wetting and leveling. The low-foaming characteristics of many surfactants produce smooth, void-free finishes with reduced orange-peel effect. Incorporating Chemguard fluorosurfactants allows polishes to be used on less-than-perfect wood or other porous surfaces and still give excellent results. Available for both water-based and solvent-based systems.

Cleaners

Incorporating Chemguard fluorosurfactants in cleaners reduces surface tension and promotes high penetration and wetting of contaminants, which in turn allows the ingredients added for emulsification and dissolution to work efficiently at reduced concentrations. For glass and hard-surfaces, the improved wetting power of Chemguard fluorosurfactants results in less residue, faster drying and no streaking or haze. S-559 can impart anti-fogging properties. For foam cleaners, S-111, S-103A, S-106A, and S-500 create very stable, high-quality foams, even at low concentrations.

Metal Plating

Chemguard fluorosurfactants assist in wetting contaminated surfaces and in penetrating difficult-to-wet tight spaces, which improves etching efficiency and reduces scale build-up. Fluorosurfactants are very stable in acid environments, even when heated, and many act as fume suppressants. By reducing drag-out and mist formation, Chemguard fluorosurfactants prolong bath quality while reducing contamination to the work environment and adjacent plating-solution tanks. S-151 is ideal for aggressive plating solutions including chrome plating.

Polymers

Chemguard fluorosurfactants improve particle wetting, aid in hydrocarbon emulsification, act as coupling agents, and serve as internal lubricants. Low foam generators, fluorosurfactants reduce surface tension and improve leveling to reduce voiding in 100% solids, polymer-based systems. In UV-curable systems, Chemguard fluorosurfactants can improve adhesion by improving pore penetration and leveling. Products are available for water-based and water-sensitive polymer-based systems.

Inks / Graphic Art

Chemguard fluorosurfactants dramatically reduce surface tension to improve wetting, flow, and leveling without creating "bleeding" issues. In addition, the low concentrations will not interfere with dye and pigment dispersion phases. Low-foam options are available for low-voiding potential. Because Chemguard fluorosurfactants tend to migrate to the surface of applied inks, they can improve anti-blocking characteristics, which reduces transfer when printed sheets are

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TYPE	POLYMER MIXTURE		DESCRIPTION	SOLVENTS						ACTIVES	SURFACE TENSION			COMPETITIVE PRODUCTS	APPLICATIONS																												
				Voc Free	Water	Isopropanol	Hexylene Glycol	Propylene Glycol	Diethylene Glycol N-Butyl Ether		Dipropylene Glycol Methyl Ether	(dynes/cm)	1000 ppm		100 ppm	10 ppm	Actives Concentration	Adhesives	Anti-Block-Additive	Anti-Fogging Products	Car Care	Cleaners	Corrosion Inhibitors	Emulsions	Floor Care	Inks	Metal Plating	Mold Release	No Voc Paints	Oil Repellent	Oil Repellent Sealer	Oilfield	Paints	Plating Chemicals	Polymer Emulsions	Sealers	Solvent Based Coatings	Solvent Based Paints	Stains	Wood Coatings			
S-111	Amphoteric	No	No	Alkyl Amine Oxide Type	◆			◆	◆				30%	15	17	39	FC-100 · FS-51 · FSK					●							●														
S-151	Anionic	No	No	Alkyl Sulfonic Acid Fluorosurfactant	◆								30%	20	50	60	FS-10 · 1033D									●							●										
S-103A	Anionic	No	No	Alkyl Sodium Sulfonate Fluorosurfactant	◆			◆					45%	20	35	56	FC-94 · FC-95 · FC-98 · FC-99 · FC-120 · FC-129 · FC-143	●			●		●					●															
S-106A	Cationic	No	No	Alkyl Ammonium Chloride Fluorosurfactant	◆			◆					30%	29	47	55	FC-93 · FC-94 · FC-95 · FC-98 · FC-99 · FC-135								●						●												
S-216M	Cationic	No	Yes	Blend Of Fluoro And Silicone Surfactants	◆			◆					45%	16	16	29	FC-93 · FC-94 · FC-95 · FC-98 · FC-99 · FC-135																									●	
S-228M	Anionic Cationic	No	Yes	Blend of Fluoro And Silicone Surfactants	◆			◆					48%	16	17	29	FC-94 · FC-95 · FC-98 · FC-99 · FC-120 · FC-129 · FC-143 · FSA · FSE · FSJ · FSP																										●
S-208M	Anionic Cationic	No	Yes	Fluorosurfactant Blend	◆			◆					45%	16	16	29	FC-93 · FC-94 · FC-95 · FC-98 · FC-99 · FC-135																										●
S-500	Amphoteric	No	No	Perfluoroalkyl Betaine	◆				◆	◆			27%	15	16	24	FS-50				●		●																				
S-550	Nonionic	Yes	No	Polyoxyethylene Fluorosurfactant		◆						◆	50%	19	20	28	FC-4434 · FSO · FS-31 · FS-35									●																	●
S-550-100	Nonionic	Yes	No	Polyoxyethylene Fluorosurfactant	◆								100%	19	20	30	FC-4430 · FC-4432 · FC-430 · FSO-100 · FS-3100								●																		●
S-554	Nonionic	Yes	No	Polyoxyethylene Fluorosurfactant		◆						◆	50%	17	18	22	FSH · FS-31 · FS-35								●																		●
S-554-100	Nonionic	Yes	No	Polyoxyethylene Fluorosurfactant	◆								100%	17	18	22	FSH · FS-3100								●																		●
S-559	Nonionic	Yes	No	Polyoxyethylene Fluorosurfactant		◆						◆	40%	22	22	29	FSN · FS-30 · FS-31 · FS-34 · FS-35 · FC-4434 · FS-300							●																			
S-559-100	Nonionic	Yes	No	Polyoxyethylene Fluorosurfactant	◆								100%	22	23	35	FC-430 · FC-4430 · FC-4432 · FS-3100 · FSN-100								●																		
S-760P	Anionic	No	No	Ammonia Neutralized Phosphate Ester	◆	◆							35%	16	18	40	FSP · FSA · FSJ · FS-60 · FS-63																										●
S-761P	Anionic	No	No	Diethanolamine Neutralized Phosphate Ester	◆	◆							34%	15.5	17	28	9361 · FS-60 · FS-63																										●
S-764P	Anionic	No	No	Ammonia Neutralized Phosphate Ester	◆	◆							22%	17	19	30	FS-610 · FSE · FS-61 · FS-64 · FS-65																										●
S-764P-14A	Anionic	No	No	Ammonia Neutralized Phosphate Ester	◆	◆							14%	17	19	30	FS-610 · FSE · FS-61 · FS-64 · FS-65																										●
S-761P-100	Anionic	No	No	Phosphate Ester Fluorosurfactant	◆								100%	17	19	30	FS-66	●																								●	