

## AEROSOL® LF4 Surfactant

**Type:** Anionic

**Chemical:** Proprietary sulfosuccinate blend

AEROSOL LF-4 is a wetting & leveling agent, dispersant and emulsifier specially designed for coatings, e.g. over print varnishes (OPV), pressure sensitive adhesives (PSA) that require good dynamic wetting and levelling performance coupled with low & unstable foam. It is also a very good co-emulsifier for producing latexes requiring low surface tension for applications such as adhesives, paint binders, printing ink binders, floor polish systems, etc.

### APPLICATIONS IN EMULSION POLYMERIZATION

- Produces latexes with very low surface tension suitable for adhesives, paints, inks & other coatings
- Reduces or eliminates the need for post-added wetting and leveling agents in the final formulation
- Very effective in producing latexes with very low particle size and narrow particle size distribution (PSD) for high-gloss systems, at low usage levels
- Can produce high solids latexes at manageable viscosity
- Provides latexes with good mechanical and electrolyte stability and very low coagulum levels
- Produces latexes with lower foam than other surfactants (sulfates, sulfonates and other sulfosuccinates)
- In combination with AEROSOL A-102 or AEROSOL 22 surfactants gives latexes with excellent adhesion properties

### PHYSICAL AND CHEMICAL PROPERTIES

Type	Anioic
Chemical	Proprietary blend
Appearance	Hazy, slightly viscous liquid
Solids, % by weight	80 ±3
Color, APHA, maximum (50% solids in 1-1 Alcohol-water)	50
Specific gravity, 25°C	1.08 - 1.11
Viscosity, cps @ 25°C	300 - 600 cps
Flash Point °C	>43, 110°F
pH, 10% solution	5-7.5
Acid number, as is	2.0 max.
Iodine value, as is	0.5 max.
Solubility-Organic polar solvents	Excellent
Solubility-Organic nonpolar solvents	Good
Acetone	soluble
Benzene	soluble
Carbon tetrachloride	soluble
Ethanol	soluble
2-ethyl hexanol	soluble
Isopropanol	soluble
Kerosene	soluble
MEK	soluble
Oleic acid	soluble
Propylene glycol	soluble

## APPLICATIONS AS A POST-ADD

### Printing Ink / Overprint Varnish Systems

Improved Wetting and leveling. Improved adhesion, gloss and color resolution.

### Textile And Paper

Excellent wetting and leveling. Can control penetration with usage level.

### Adhesive Systems

Improved adhesion due to better wetting. Used in both adhesive formulations and to precoat substrates.

### Paint Systems

Improved wetting and leveling on difficult-to-wet substrates. Better penetration and adhesion.

### Coatings On Hydrophobic Substrates

Improved adhesion due to deeper equilibrium wetting.

## SHELF LIFE

This surfactant has a recommended shelf life of 6 months for optimal wetting and low-foam performance.

## TECHNICAL ASSISTANCE

Latex recipes with Aerosol LF4 for paint binders, PSA's, industrial coatings, floor polish systems, etc. can be obtained by contacting Technical Service or through your local sales representative.

## SURFACE ACTIVE PROPERTIES

Critical Micelle Concentration (CMC)	0.02
Surface tension @cmc	24 dynes/cm
Wetting time (Draves Test)	1 sec (1% aq. soln.)

### Foam Test - Ross Miles (1.0% aq. soln.)

Time:	0 min.	60 secs.
Foam vol.(ml)	180	0

### Equilibrium Surface Tension (0.5% aq. soln.)

AEROSOL LF4	24 dyn/cm
AEROSOL OT	26 dyn/cm

### Dynamic Surface Tension (Dyn/Cm; 1% aq. soln.)

	3 B/s	6B/s
AEROSOL LF4	28	30
AEROSOL OT	27	29

NOTE: A bubble tensiometer was used to generate this data. B/s is bubbles/second. A higher B/s number translates to faster coating speeds.

### Electrolyte Tolerance

At 0.05% solids	>2250 ppm Calcium tolerance
At 0.5% solids	>2250 ppm Calcium tolerance

## STORAGE AND HANDLING

Containers must be bonded and grounded when pouring or transferring material. The material should be stored at ambient temperature to ensure the required quality.

The efficacy of AEROSOL LF-4 surfactant is not impaired by freezing and thawing. However, if a freezethaw occurs, it is recommended to agitate the entire contents of the container prior to use.

Handling and storage information on this product can be found in the corresponding Cytec Industries Inc. Material Safety Data Sheet

## HEALTH AND SAFETY INFORMATION

Before handling this material, read the corresponding Cytec Industries Inc. Material Safety Data Sheet for safety, health and environmental data.

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