Capstone™ FS-3100
Fluorosurfactant

Technical Information

Description
Capstone™ FS-3100 is a nonionic fluorosurfactant that provides exceptionally low surface tension in aqueous- or solvent-based products, enabling better wetting, spreading, leveling, and other beneficial properties. FS-3100 is VOC-free, APEO-free, and compatible with additives and resins of any ionic class.

Even at very low concentrations, FS-3100 can deliver tremendous wetting power. FS-3100 is stable in acidic, basic, brine, and hard water environments—making it easy to formulate into a variety of systems. The absence of solvent makes FS-3100 a particularly effective additive to organic polymers, as well as solvent-based paints and coatings. It is also effective as an additive in cleaning products, paints, coatings, adhesives, and films.

Applications

Water-Based Floor Care (Finishes, Waxes, and Polishes)
- Provides wetting and leveling
- Good re-wet characteristics in multi-coat applications
- Reduces cratering and provides faster spreading
- Compatible with hydrocarbon surfactants
- Suggested use rates are 0.01–0.05% active ingredient (A.I.)

Concentrated Cleaning Solutions
- Reduces surface tension and provides excellent wetting to achieve cleanability
- Provides improved wetting and penetration, especially with difficult to wet soils
- Suggested use rates are 0.01–0.1% A.I.

Metals and Electronics
- Improved etching efficiency
- Effective plating bath aid
- Zinc battery scale inhibitor
- Low foamer in photoresist strippers

Stability and Surface Activity in Brine and Aggressive (Acidic and Basic) Media

Typical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Viscous light yellow to amber liquid with some solids</td>
</tr>
<tr>
<td>pH</td>
<td>7-8.5</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.35–1.39 g/mL</td>
</tr>
<tr>
<td>Stability</td>
<td>Freeze-thaw stable. Mix well before use. Stable in brine and aggressive media.</td>
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<tr>
<td>Composition</td>
<td>100% solids</td>
</tr>
<tr>
<td>Shelf Life</td>
<td>5 years</td>
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<tr>
<td>Flash Point</td>
<td>Nonflammable</td>
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</tbody>
</table>

Performance

Surface Tension

![Capstone™ FS-3100 Surface Tension Graph]
Additional Applications

Paints and Coatings
- Compatible with most aqueous- or solvent-based paints
- Will migrate and become part of the cured paint in 2K polyurethane paints
- Can be used in UV coating applications

Aqueous-Based Paints and Inks
- Excellent wetting and leveling, reduced orange peel effect, extend the open time
- Compatible with most aqueous-based paints
- Improved wetting in wood coatings
- Suggested use rates are 0.01–0.1% A.I. in aqueous-based paints

Capstone™ Repellents and Surfactants
- Deliver more sustainable solutions with maximum performance
- Are in compliance with REACH requirements
- Are listed on TSCA inventory

Fluorosurfactant

For questions regarding technical data, commercialization, and sampling:

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