



innovative chemical technologies, inc.

FLEXIWET NF

TECHNICAL DATA SHEET

- ◆ **Low/No Foam Fluorinated Anionic Surfactant**
- ◆ **Outstanding Wetting Properties: Perfect Choice For Wetting Difficult To Wet Surfaces**
- ◆ **Low/No Foam: Acts As A Defoamer in Many Systems (Best Defoaming Achieved With Anionics)**
- ◆ **Eliminates The Need For Defoamers In Applications Such As Floor Polishes and Carpet Extraction Cleaners**
- ◆ **Provides Anti-Soiling Properties**
- ◆ **Stable In Concentrated Acids, Bases and Oxidizing Solutions**
- ◆ **Low Use Levels Required (0.01-1.0%)**

APPLICATIONS

- ◆ **Floor Polishes/Strippers**
- ◆ **Carpet Extraction/Spot Cleaners**
- ◆ **Paints & Coatings**
- ◆ **Caustic Bottle Washing**
- ◆ **Acid Based Cleaners**
- ◆ **Bleach Based Cleaners**
- ◆ **Agricultural Products**

Flexiwet NF's unique properties make it an ideal choice in a wide range of applications. A few applications include:

Floor Polishes & Floor Strippers:

The low/no foam properties and superior wetting properties of Flexiwet NF make it an ideal choice in floor polish applications. Flexiwet NF has the potential to replace both traditional fluorinated surfactants (such as FC-120/FC-129) as well as the silicone defoamer used in many systems to control foaming. Silicone defoamers can create problems if used improperly or if the right defoamer is not utilized.

Flexiwet NF can be used in floor strippers to improve wetting on difficult to strip surfaces and to reduce or eliminate concerns with foaming. The significant reduction in surface tension and foam allows the stripper to work more effectively thereby reducing labor time and costs.

Carpet and Upholstery Extraction and Spot Cleaners:

When formulated properly, Flexiwet NF eliminates the need for a separate defoamer in carpet and upholstery extraction applications and provides valuable benefits in both spot cleaners and extraction formulations. These benefits include enhanced anti-soiling properties, increased wetting and penetration and improved cleaning and soil/stain removal.

Review the Flexiclean CC-307 data sheet for formulations containing Flexiwet NF. Flexiclean CC-307 is a unique polymer/surfactant system developed specifically for carpet cleaning applications.

Paints & Coatings:

Flexiwet NF is a perfect choice in aqueous paints and coatings and will provide enhanced wetting, spreading, improved adhesion and reduction in cratering, retraction, and pinholing. Suggested use levels range from 0.01-0.3% based on the weight of the coating.

TECHNICAL INFORMATION

A key feature of Flexiwet NF that differentiates it from all other fluorinated surfactants available to date is that it creates little or no foam. Foam that forms with Flexiwet NF collapses readily, quickly, and completely. Flexiwet NF can be used as a defoamer in various systems because foam that forms will collapse quicker due to the presence of Flexiwet NF.

Dramatic surface tension reduction of all types of aqueous systems can be achieved with the addition of 0.02 to 1.0% of Flexiwet NF, including strong acid, base, and oxidizing solutions. It has exceptional stability and functionality in severe thermal and chemical environments. It can be combined with concentrated Nitric acid, evaporated, and recovered intact. Low surface tensions can be achieved in both alkaline and acid systems. For example, the surface tension of 10% Sodium Hydroxide can be lowered to 30 dynes/cm with as little as 0.05% Flexiwet NF and to 20 dynes/cm with as little as 0.5% Flexiwet NF. Similarly, 25% Sulfuric, 25% Nitric, and 10% Hydrochloric acids can be reduced in surface tension to the mid 30s dynes/cm with 0.05% Flexiwet NF and to 19 dynes/cm with 0.5% Flexiwet NF.

Flexiwet NF is an excellent choice for wetting difficult to wet surfaces such as plastics, oily substrates, waxy surfaces, and silicone and fluoropolymer treated fabrics because the surface tension of aqueous solutions and emulsions can be reduced to 19 to 20 dynes/cm. This low surface tension results in better wetting, spreading, and penetration which translates into improved film uniformity, enhanced adhesion, reduced pinholes and craters for coatings, reduced droplet size and therefore less water spotting, and smoother and more even films for finishes and polishes. It also translates into better wetting and penetration of cleaning solutions which makes them more effective.

Flexiwet NF provides far greater surface tension reduction than can be achieved with either hydrocarbon or silicone based surfactants. When used in conjunction with “conventional” hydrocarbon surfactants, it is possible to achieve a system that not only dramatically reduces surface tension, but also lowers interfacial tension resulting in a liquid that easily wets and spreads on otherwise hard to wet surfaces.

Flexiwet NF also retards resoiling of surfaces cleaned with solutions containing it. This can be a major value and benefit in many cleaning formulations, especially carpet and hard surface (tile, tub, and bowl) cleaners.

TYPICAL PROPERTIES

Appearance	Clear to Slightly Hazy, Colorless to Pale Amber Liquid
Density @ 25C	1.02 g/ml (8.5 lbs/gal)
pH (5 % solution)	2.0-3.0
Water Solubility	Soluble
Boiling Point	Approx. 100C

PACKAGING/HANDLING

Flexiwet NF is available in totes (Net Wt. 2200 lbs),
55 gallon drums (Net Wt. 440 lbs) and 5 gallon pails (Net Wt. 40 lbs).
DOT Classification is Non Regulated.