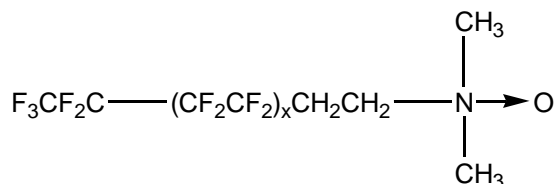


# Masurf<sup>®</sup> FS-230



## Fluoroaliphatic Amine Oxide Fluorosurfactant

### Overview

MASURF FS-230 is characterized as a 30% active fluoroaliphatic amine oxide fluorosurfactant in a water/isopropanol solution. With typical use levels of 50-500ppm, MASURF FS-230 is effective at very low concentrations, and together with traditional hydrocarbon surfactants, can contribute properties not possible with either material alone. FS-230 exhibits exceptional surface activity in acidic environments, is stable and effective in anionic and cationic systems, and effective in high or low pH.

When formulated into **Industrial Cleaning Products**, FS-230 imparts exceptional wetting, leveling and penetration. Exceptionally low surface tension overcomes surface defects and contributes to uniform drying properties. **Recommended by Floor Finish Polymer Manufacturers**, Masurf FS-230 is an exceptional wetting and leveling agent, contributing to superior high solids leveling, recoat, enhanced gloss, faster drying and reduced mop drag in aqueous **Polishes, Floor Finishes and Sealers**.

Use FS-230 to tailor substrate wetting and flow character, and post-cure properties such as adhesion performance and surface penetration in water reducible **Inks and Coatings**. As an **Oil Well Stimulation Fluid** ingredient, MASURF FS-230 is effective in foaming and reducing surface tension in acids, KCl or brine.

### Typical Properties

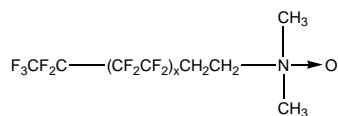
Physical form .....	Light yellow liquid with mild odor
Actives content .....	29.5 wt% minimum
Solids content (2 hrs. @90°C).....	29.5 wt% minimum
Aqueous surface tension @25°C dynes/cm .....	30.5@0.001%, 15.5@0.01%, 14.5 lowest
Interfacial tension (0.1%aq./cyclohexane) .....	8.3 dynes/cm
Specific gravity @25°C.....	1.10±0.04
pH .....	6.5±1.0
Viscosity @25°C.....	<100 cps
Flash point (TCC) .....	28°C
VOC content (volatile-water) .....	30% (Isopropanol)
Storage .....	Store above 32°F and below 100°F

### Handling Information

Refer to the Material Safety Data Sheet (MSDS) available from Mason Chemical Company for information on the safe use, handling and disposal of this product.

*Masurf is a Registered Trademark of Mason Chemical Company.*

# Masurf<sup>®</sup> FS-230



Masurf FS-230 is a 30% active fluoroaliphatic amine oxide fluorosurfactant in a water/isopropanol solution. FS-230 is an exceptional wetting and interfacial tension reducing agent.

## Masurf FS-230 Fluorosurfactant use in Coatings, Floor Finishes & Sealers-

Evaluation in the Rohm & Haas Floor Care lab has identified Masurf FS-230 as having comparable, if not better performance than Fluorad\* FC-129, and is "less polymer and formulation specific compared to the Zonyl\*\* and Lodyne\*\*\* products, and seems to be more efficient." These results have been confirmed in the field with users being able to replace FC-129 with FS-230 at an equal or lower formula cost with better overall product performance when compared to products formulated with other currently available fluorosurfactants. The Rohm & Haas Floor Care lab recommends 0.015% Masurf FS-230 for 45ppm active fluorosurfactant. For additional information, visit the Rohm & Haas Floorcare Website at <http://floorcare.rohmhaas.com> and look in the "What's New" folder.

When compared with Zonyl FSO in typical floor finish formulations, Masurf FS-230 use as recommended by Rohm & Haas contributes superior performance while adding only 3¢ per gallon to the overall formula cost versus FSO.

\*Fluorad is a Registered Trademark of the 3M Company, \*\* Zonyl is a Registered Trademark of DuPont, \*\*\*Lodyne is a Trademark of Ciba

## Masurf FS-Fluorosurfactant evaluation guidelines-

To facilitate addition and ensure adequate mixing, it is normal practice with fluoroaliphatic surfactants to add them to the system as a clear 1-10% stock solution, dissolved in a mixture of isopropyl alcohol or other suitable polar solvents (such as the glycol ether solvents and coalescent) and water. Typically, when formulating floor finish emulsions or other polymer solutions, the fluorosurfactant stock solution is added along with the plasticizers, prior to addition of polymer solutions.

Evaluate in aqueous formulations at 0.1% Masurf FS-Fluorosurfactant initially, then optimize by successively reducing the FS concentration by ½.

Masurf FS-Fluorosurfactants and Masurf FP-Fluoropolymers do not contain PFOS. Masurf FS and FP products are manufactured with telomerization process fluoroaliphatic intermediates that do not contain, release or have been shown to degrade to perfluorooctane sulfonate (PFOS).

Mason Chemical Company is supplying Masurf FS-230 as a 30% actives material available in 440 pound drum, 40 pound pail and 8 pound gallon packages.