MANTA

Technical Data Sheet

Version: 1.0

Manta F1019 Water Soluble Silicone Fluid

Description

Manta F1019 is a multifunctional polyether-modified silicone fluid featuring a balanced ratio of ethoxylated (PEG) and propoxylated (PPG) side chains.

This specific dual-action architecture distinguishes it from simple hydrophilic silicones. While the PEG groups ensure excellent water solubility, the PPG groups provide a higher degree of lubricity and substantivity. This makes Manta F1019 an exceptional conditioning surfactant and co-emulsifier. It effectively reduces interfacial tension to stabilize foams and emulsions, while depositing a soft, breathable, and antistatic film that enhances the manageability of hair and the skin-feel of aqueous cleansers.

Typical Physical Properties

INCI/CTFA	PEG/PPG-15/15 Dimethicone
Chemical Name:	Alkoxylated Silicone Copolymer (PEG/PPG Modified)
CAS NO.:	68937-55-3
Appearance	Colorless to slightly yellow transparent liquid
Refractive index (25°C)	1.4500-1.4600
Specific gravity (25°C)	1.035-1.060
Viscosity (cSt, 25°C)	300-600

Properties

1. Functions as a high-performance non-ionic surfactant with ultra-low surface tension and anti-static properties.
2. Completely soluble in water, propylene glycol, and glycerin, forming clear and stable systems.
3. Highly compatible with both silicone oils and organic lipids, acting as an efficient co-emulsifier.
4. Acts as a superior foam stabilizer and density enhancer in surfactant-based formulations.
5. Imparts a luxurious, silky-soft sensory profile to both skin and hair without causing buildup.
6. Physiologically inert; suitable for leave-on and rinse-off products.

Applications

Manta F1019 is used in various clear and emulsion-based products, including:

1. Cleansing Systems: Facial cleansers, body washes, and transparent liquid soaps.
2. Hair Care: Styling gels, hair tonics, and aqueous conditioning sprays (provides anti-static benefits).
3. Skin Care: Moisturizing creams, lotions, and alcohol-free toners.
4. Specialized Applications: Functions as a foam stabilizer for aerosol products and a high-performance brightener in leather care formulations.

How to Use

1. Cold Processing: Manta F1019 is completely cold-processable. It can be added directly to the water phase of any formulation under standard mixing.
2. Co-Emulsification: When used to stabilize complex oil phases (silicones or esters), it is recommended to pre-blend F1019 with the oil phase before adding to the water phase to maximize its emulsifying efficiency.
3. Aerosol Systems: For styling foams or shaving creams, it should be incorporated into the base concentrate prior to propellant charging to ensure uniform foam structure.
4. Recommended Dosage: 0.5% - 5.0% for most personal care applications; typically used at 1.0% - 3.0% in facial cleansers and creams.

Packing

In 200L drum, IBC

Safety and Storage

Keep away from heat and open flame. Prevent from the exposure of moisture, acid, alkalis and other impurities. When stored in the original unopened containers, this product has a usable life of 24 months from the date of production.

Contact Information

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