MANTA

Technical Data Sheet

Version: 1.0

Manta F1031 Amino Silicone Fluid

Description

Manta F1031 is a specialized linear, end-blocked amino silicone fluid. Unlike traditional amodimethicones where amino groups are randomly distributed along the chain, Manta F1031 features reactive amino groups located exclusively at the terminals (ends) of the polymer chain.

This precise telechelic architecture offers a revolutionary balance between substantivity and aesthetics. The terminal amino groups provide strong, targeted adsorption to the damaged, negatively charged sites of hair fibers without the risk of severe oxidation associated with high-amine-content fluids. This results in superior yellowing resistance and a conditioned feel that is exceptionally smooth, lightweight, and completely free of heavy build-up.

Typical Physical Properties

INCI/CTFA	Bis-aminopropyl Dimethicone
Chemical Name:	End-Functionalized (Telechelic) Amino Silicone
CAS NO.:	106214-84-0
Appearance	Colorless to slightly yellow transparent liquid
Refractive index (25°C)	1.3950-1.4150
Specific gravity (25°C)	0.950-1.000
Viscosity (cSt, 25°C)	1,000-20,000
Amine Value (mmol.g-1)	0.06

Note: These values are not intended for use in preparing specifications.

Features

1. Delivers highly targeted adsorption to damaged hair cuticles, dramatically improving both wet and dry combing without weighing the hair down.
2. Exhibits outstanding yellowing resistance and a very low odor profile due to its optimized terminal amine structure (Amine Value: 0.06).
3. Imparts long-lasting, silky-smooth softness and a clean, build-up-free sensory feel.
4. Functions as a lightweight conditioning agent ideal for color-treated, fine, or easily weighed-down hair.
5. Easily emulsified using standard cosmetic surfactants for seamless incorporation into aqueous systems.

Applications

Manta F1031 is an ideal additive for personal care products, including:

1. Daily Hair Care: Shampoos, lightweight conditioners, and leave-in detangling sprays.
2. Intensive Hair Treatments: Deep conditioning masks and hot oil treatments.

3. Chemical Processing: Perming lotions and hair colorants (acts as a targeted structural protectant).

How to Use

1. Chemical Treatments: Incorporate into perming and dyeing systems as a structural protectant to mitigate the physical and chemical damage caused by thioglycolic acid, its salts, and oxidants. (Note: It does not function as an alkali and cannot replace ammonia or other alkalizing agents).
2. Emulsion Systems: Pre-emulsify the fluid using suitable emulsifiers, or slowly add it directly to the final emulsion system during the cool-down phase at temperatures strictly below 50°C. Stir evenly until completely homogeneous.
3. Anhydrous/Oil-Based Systems: For oily products or hair serums, it can be added directly to the oil phase at room temperature and mixed well.
4. Recommended Dosage: 0.1% - 2.0% of the total formulation, depending on the targeted level of conditioning and the specific hair type.

Packaging

In 25L pail, 200L drum

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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