MANTA

Technical Data Sheet

Version: 1.0

Manta F1030 Amino Silicone Fluid

Description

Manta F1030 is a reactive, cationic amino-modified polysiloxane designed for high-performance hair care. It features pendant amine groups distributed along the silicone backbone, which impart a strong positive charge (polarity) to the molecule.

Distinguished by its self-crosslinking capability, Manta F1030 goes beyond simple lubrication. Upon application and drying, the reactive amino sites undergo condensation to form a coherent, elastic polymeric network on the hair shaft. This mechanism provides intelligent conditioning—selectively adsorbing to damaged, anionic areas of the hair fiber—while creating a durable shield that resists wash-off, delivering a long-lasting, ultra-soft, and velvety finish.

Typical Physical Properties

INCI/CTFA	Amodimethicone
Chemical Name:	Reactive Amino-Functional Silicone Fluid
CAS NO.:	68554-54-1
Appearance	Colorless to slightly yellow transparent liquid
Refractive index (25°C)	1.4000-1.4150
Specific gravity (25°C)	0.960-0.990
Viscosity (cSt, 25°C)	2500-6000
Amine Value (mmol.g-1)	0.36

Properties

1. Exhibits intelligent conditioning by selectively adsorbing to damaged areas of the hair fiber.
2. Readily emulsified using standard surfactants for seamless incorporation into various cosmetic systems.
3. Imparts long-lasting softness and velvety smoothness with exceptional wet and dry combing properties.
4. Forms a durable, self-crosslinking elastic polymeric film that provides a protective shield and resists wash-off.
5. Restores the natural hydrophobicity of the hair cuticle, significantly improving hair manageability and shine.

Applications

Manta F1030 is a high-substantivity additive for professional hair care products, including:

1. Daily Hair Care: Strengthening shampoos and intensive conditioners.
2. Salon Treatments: Deep conditioning masks, hair repair serums, and hot oil treatments.
3. Chemical Processing: Perming lotions and hair colorants (as a high-performance structural

protectant).

How to Use

1. Structural Protection: Incorporate into perming and hair dyeing formulations as a structural protectant to mitigate the physical and chemical damage caused by ammonia, thioglycolates, and oxidants. Note: It does not function as an alkali and cannot replace ammonia or other alkalizing agents.
2. Emulsion Systems: When formulating hair care products, melt the oil phase first, then slowly incorporate Manta F1030 into the oil phase at temperatures strictly below 50°C. Stir until completely homogeneous before beginning the emulsification process.
3. Recommended Dosage: 0.1% - 2.0% of the total formulation, depending on the desired level of substantivity and the specific requirements of the targeted hair type.

Packing

In pails, drums

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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