MANTA

Technical Data Sheet

Version: 1.0

Manta F2012 Aminophenyl Silicone Fluid

Description

Manta F2012 is a sophisticated dual-functional silicone fluid that combines the reparative power of amine groups with the optical brilliance of phenyl groups.

Unlike standard amino-silicones which are highly prone to oxidation, Manta F2012 features a sterically hindered structure that offers outstanding yellowing resistance, making it ideal for light-colored, bleached, or dyed hair products. The polar amino groups provide targeted substantivity to damaged cuticles for deep conditioning, while the phenyl groups significantly boost the refractive index, delivering mirror-like gloss and superior compatibility with organic cosmetic ingredients.

Typical Physical Properties

INCI/CTFA	Aminopropyl Phenyl Trimethicone
Chemical Name:	Aminopropylphenyltrimethylsiloxane
CAS NO.:	204691-92-9
Appearance	Colorless to slightly yellow transparent liquid
Refractive index (25°C)	1.4900-1.5100
Specific gravity (25°C)	1.00-1.15
Viscosity (cSt, 25°C)	1000-5000

Features

Delivers outstanding targeted substantivity to damaged hair cuticles, significantly improving both wet and dry combing properties;

Highly resistant to oxidative yellowing with a low-odor profile, perfect for clear or color-sensitive formulations;

Imparts mirror-like gloss and a high refractive index due to the phenyl functionality;

Provides long-lasting softness, velvety smoothness, and superior overall conditioning performance;

Easily emulsified and highly compatible with a broad range of cosmetic ingredients.

Applications

Manta F2012 is an additive for personal care products, including:

Daily Hair Care: Premium shampoos and daily conditioners;

Intensive Hair Treatments: Deep conditioning masks and leave-in hair repair serums;

Chemical Processing Protectants: Perming lotions and hair colorants (protects the hair shaft during harsh chemical processing).

How to use

Chemical Treatments (Perms & Dyes): Incorporate directly into perming lotions or hair dyes as a

structural protectant to mitigate the severe physical and chemical damage caused by ammonia, thioglycolates, and oxidants during processing.

Emulsion Systems (Conditioners/Creams): Pre-emulsify the fluid using suitable surfactants, or add it directly to the formulation during the cool-down phase at temperatures strictly below 50°C. Stir evenly until completely homogeneous.

Anhydrous/Oil-Based Systems: For hair oils or serums, it can be added directly to the oil phase at room temperature under standard mixing conditions.

Recommended Dosage: 0.2% - 2.0% of the total formulation, depending on the targeted level of conditioning and gloss required.

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

Nanjing Manta New Material Co., Ltd
Add: Room 102-247, Building 17, No. 1 Qiliqiao North Road, Nanjing Area of the China (Jiangsu) Pilot Free Trade Zone, Nanjing, China
Factory: Miaoguan Town Industrial Park, Sishui County, Jining City, Shandong Province, China
Mob: 0086 18962800162
Mail:sales@mantasil.com Web:www.mantasilicone.com