MANTA

Technical Data Sheet

Version: 1.0

Manta F1057 Phenyl Silicone Fluid

Description

Manta F1057 is a high-performance phenyl-substituted siloxane fluid, distinct for its high refractive index and unique solubility profile.

Unlike standard dimethicones, Manta F1057 features a molecular structure modified with phenyl groups. This modification imparts a brilliant, mirror-like gloss to formulations, making it a premier photonic enhancer for hair and skin. Crucially, it exhibits excellent compatibility with ethanol and organic sunscreens. It functions as a superior anti-whitening agent (anti-soaping) in creams and acts as a dry oil emollient, significantly reducing the tackiness and greasy residue of heavy organic ingredients.

Typical Physical Properties

INCI/CTFA	Phenyl Trimethicone
Chemical Name:	Phenyl-Modified Polysiloxane Fluid
CAS NO.:	2116-84-9 (General) or 73559-47-4
Appearance	Colorless to slightly yellow transparent liquid
Refractive index (25°C)	1.4600-1.4690
Specific gravity (25°C)	0.980-1.025
Viscosity (cSt, 25°C)	18-27

Features

1. Acts as an excellent co-solvent for organic UV filters, enhancing SPF distribution and formula stability (Note: Does not act as a standalone UV filter);
2. Imparts superior water resistance to formulations while remaining highly breathable and non-occlusive;
3. Exhibits outstanding compatibility and miscibility with a wide range of cosmetic waxes, oils, and alcohols;
4. Functions as a premium non-volatile emollient, delivering a smooth, soft, and distinctly non-greasy skin feel;
5. Significantly boosts the refractive index, providing a brilliant, mirror-like gloss to both the formulation and the treated hair or skin.

Applications

Manta F1057 can be widely used in personal care products, including:

1. Skin Care: Moisturizing lotions, facial creams, and shaving formulations;
2. Sun Care: Sunscreens and after-sun products (improves UV filter solubility and reduces the soaping or white cast effect);

3. Hair Care: Hair serums, glossing sprays, and conditioners;
4. Color Cosmetics: Liquid foundations, lipsticks, and lip glosses.

How to Use

1. Emulsification: Can be easily emulsified using conventional cosmetic emulsifiers and standard processing techniques.
2. Compatibility Profile: Highly miscible with ethanol (95%), isopropyl alcohol (99%), mineral oil, lanolin, paraffin waxes, beeswax, and esters like isopropyl myristate. Note: It exhibits poor compatibility with highly polar solvents such as glycerin.
3. Recommended Dosage: 0.5% - 5.0% of the total formulation, depending on the desired level of gloss and emolliency.

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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