MANTA

Technical Data Sheet

Version: 1.0

Manta F1012 Low Viscosity Alkyl Silicone Fluid

Description

Manta F1012 is a low-molecular-weight, alkyl-functionalized siloxane fluid, specifically grafted with C12 (Lauryl) chains on a dimethicone backbone.

This hybrid molecular structure bridges the gap between traditional silicones and organic oils. Manta F1012 is engineered as a superior pigment wetting agent and dispersant. Its low surface tension allows it to penetrate and coat pigment particles instantly, preventing agglomeration. Unlike heavier alkyl waxes, Manta F1012 remains a light, flowable liquid, providing the spreadability of a silicone with the excellent compatibility of an organic ester. It is a key ingredient for creating high-coverage, low-viscosity makeup and premium skincare formulations.

Typical Physical Properties

INCI/CTFA	Lauryl Dimethicone
Chemical Name:	Low Viscosity Alkyl-Modified Silicone Fluid
CAS NO.:	192230-29-8
Appearance	Colorless to slightly yellow transparent liquid
Refractive index (25°C)	1.4100-1.4300
Specific gravity (25°C)	0.810-0.840
Viscosity (mPa.s, 25°C)	2.0-6.0

Features

1. Functions as a highly efficient pigment wetting and dispersing agent, preventing particle agglomeration and improving color yield.
2. Exhibits exceptional compatibility with a wide variety of organic cosmetic ingredients, natural lipids, and organic UV filters.
3. Provides a light, highly spreadable sensory profile with excellent substantivity and wear resistance on the skin.
4. Delivers a high-gloss, distinctly non-sticky, and non-greasy finish.
5. Helps to lower the overall viscosity of high-powder-load formulations, ensuring a smooth, fluid texture.

Applications

Manta F1012 is widely used in high-performance personal care and color cosmetic products, including:

1. Color Cosmetics: Liquid foundations, concealers, lipsticks, and lip glosses (dramatically improves pigment dispersion and color intensity).
2. Sun Care: Sunscreens and daily UV lotions (improves the dispersion of physical UV filters like

TiO2 and ZnO without whitening).
3. Skin Care: Lightweight facial creams, body lotions, and makeup primers.
4. Personal Care: Antiperspirants and deodorants.

How to Use

1. Processing (General): Can be added directly to the oil phase of the formulation and mixed until uniform.
2. Pigment Dispersion: For color cosmetics and sunscreens, it is highly recommended to pre-mix or mill Manta F1012 directly with the pigments/powders before incorporating them into the main bulk. This maximizes its wetting efficiency and ensures optimal color development.
3. Dilution: Can be used directly as a low-viscosity diluent to adjust the final rheology of heavy formulations.
4. Recommended Dosage: 1.0% - 5.0% for standard skincare applications; up to 15.0% in high-coverage color cosmetics or pigment pastes.

Packaging

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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