MANTA

Technical Data Sheet

Version: 1.0

# Manta F1042 Caprylyl Silicone Fluid

## Description

Manta F1042 is an alkyl-modified silicone fluid designed to bridge the gap between performance silicones and organic lipids. Its unique structure combines a hydrophobic caprylyl chain with a branched trimethicone backbone.

This hybrid architecture provides dual benefits: the caprylyl group ensures superior compatibility with organic oils, esters, and sunscreens, while the branched structure imparts high luminosity and aids in the uniform deposition of active ingredients. It exhibits a semi-volatile profile (comparable to D6), acting as a lightweight carrier that effectively reduces the greasiness of heavy organic oils, leaving behind a breathable, non-tacky, and silky film.

## Typical Physical Properties

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| INCI/CTFA | Caprylyl Trimethicone |
| Chemical Name: | Alkyl-Functionalized Branched Silicone Fluid |
| CAS NO.: | 187593-69-7 |
| Appearance | Colorless transparent fluid |
| Refractive index (25°C) | 1.4050-1.4150 |
| Specific gravity (25°C) | 0.800-0.900 |
| Viscosity (mPa.s, 25°C) | 2.0-4.0 |

## Features

1. Low-molecular-weight organosiloxane structure ensuring superior spreadability and an ultra-light feel.
2. Physiologically inert.
3. Outstanding organic solvent compatibility, functioning as a high-efficiency co-solvent for botanical oils and esters.
4. Semi-volatile profile comparable to Cyclohexasiloxane (D6), providing optimal application time and a clean dry-down.
5. Delivers excellent conditioning properties and imparts a brilliant shine to hair and skin.
6. Highly miscible with various cosmetic solvents, facilitating the stabilization of complex multi-phase systems.

## Applications

Manta F1042 can be widely used in personal care products, including:

1. Skin Care: Facial serums, lightweight creams, and body lotions (reduces tackiness of organic ingredients).
2. Sun Care: Sunscreens and after-sun products (improves spreadability and UV filter solubility).

3. Color Cosmetics: Liquid foundations, makeup primers, and long-wear lipsticks.
4. Personal Care: Deodorants, antiperspirants, and hair conditioning treatments.

## How to Use

1. Processing: Highly versatile; can be used directly as a primary carrier, a main raw material, or a functional additive to improve organic compatibility.
2. Emulsification: Easily incorporated into both O/W and W/O emulsion systems using standard processing techniques (add directly to the oil phase).
3. Recommended Dosage: 0.5% - 20.0% of the total formulation, depending on the desired sensory profile and compatibility requirements.

## 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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