MANTA

Technical Data Sheet

Version: 1.0

Manta F1016C

Hair and Skin Care Silicone Fluid

Description

Manta F1016C features a dense, hydroxyl-functionalized Dimethiconol gum solubilized within a volatile Cyclopentasiloxane (D5) vector.

Upon application, the volatile vector ensures uniform distribution before rapidly evaporating. This leaves the high-viscosity gum to perform its primary function: micro-sealing. Unlike inert methyl-silicones, the reactive hydroxyl groups on the polymer backbone actively adhere to the protein structure of damaged hair (keratin) through polar interactions. This results in a liquid bandage effect that physically mends split ends and smooths the cuticle surface for immediate, visible restoration. Performance comparable to Dow DC1501.

Typical Physical Properties

Product Code	F1016C	F1016C(6000-8000cSt)	F1016C(15000cSt)
INCI/CTFA	Cyclopentasiloxane (and) Dimethiconol		
Chemical Name:	Hydroxyl-Functional Silicone Gum in Volatile Carrier		
CAS NO.:	541-02-6, 31692-79-2, 70131-67-8		
Appearance	Colorless transparent viscous fluid		
Refractive index (25°C)	1.396-1.405	1.396-1.405	1.396-1.405
Specific gravity (25°C)	0.950-0.970	0.950-0.970	0.950-0.970
Viscosity (cSt, 25°C)	5000~7000	6000~8000	15000~17000

Note: These values are not intended for use in preparing specifications.

Properties

1. Imparts a luxurious, velvety, and silky sensory profile to skin and hair.
2. Provides exceptional gloss and superior light-reflective properties.
3. Forms a breathable, soft silicone protective film (Liquid Bandage effect).
4. Enhances the substantivity and longevity of other active ingredients on the skin.
5. Significantly reduces surface friction to improve slip and maintains water resistance.
6. Exhibits excellent hydrophobicity, protecting hair from humidity and frizz.

Applications

Manta F1016C is an additive for:

1. Hair Care: Split-end repair serums, anti-frizz leave-in conditioners, and styling aids.
2. Skin Care: Facial moisturizers, luxury creams, and body lotions.
3. Color Cosmetics: Primers, liquid foundations, and long-wear lip products.
4. Sun Care: Water-resistant sunscreens and after-sun formulations.

How to Use

1. Temperature Control: Due to the volatility of the D5 carrier, it is highly recommended to process Manta F1016C at room temperature or below 50°C. If the oil phase requires melting, cool the batch to 50°C before adding this product under continuous stirring.
2. Compatibility: Exhibits excellent compatibility with oil-phase cosmetic materials such as pigments, natural lipids, and fragrances.
3. Direct Application: After adjusting the viscosity with cyclomethicones, the product can be used directly as a high-end hair serum to condition, hydrate, and restore dry or weakened hair.
4. Recommended Dosage: 3.0% - 8.0% in standard hair and skin care products; 20.0% - 50.0% in concentrated hair serums or hair oil formulations.

Packing

In 50kg pail, 195kg iron drum

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. This product is non-hazardous product.

Contact Information

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