MANTA

Technical Data Sheet

Version: 1.0

Manta A202 Methyl MQ Silicone Resin

Description

Manta A202 is a solid, high-purity Methyl MQ Silicone Resin. Chemically, it is a three-dimensional hydrolysis product of tetra-functional silanes (Q units) and mono-functional silanes (M units), resulting in a highly branched, rigid molecular structure.

Unlike pre-solubilized resins, Manta A202 offers ultimate formulation flexibility. It features a tightly controlled low content of residual hydroxyl and alkoxy groups, ensuring exceptional chemical stability and hydrophobicity. When dissolved, it functions as a superior hard film former, creating a tough, transfer-resistant, and breathable network on the skin that acts as a powerful anchor for pigments and UV filters.

Typical Physical Properties

INCI/CTFA	Trimethylsiloxysilicate
Chemical Name:	MQ Silicone Resin (Solid/Pure Resin)
CAS NO.:	68988-56-7
	56275-01-5
Appearance	White powder
Bulk density (g/cm^3)	0.45-0.75
Volatile content (%, 150°Cx3h)	≤ 2

Features

1. Functions as a film-former, creating a highly durable, flexible, and breathable three-dimensional network on the skin and hair.
2. Delivers extreme hydrophobicity, significantly improving the water resistance and wash-off resistance of formulations.
3. Provides exceptional transfer resistance (anti-smudge/anti-rub) for color cosmetics, ensuring true long-lasting wear.
4. Enhances the structural integrity, rheological profile, and gloss of the formulation's oil phase.
5. Chemically inert and highly compatible with a broad range of volatile silicones and organic cosmetic solvents.

Applications

Manta A202 is a film-former for personal care products, including:

1. Color Cosmetics: Long-wear lipsticks, lip stains, transfer-proof liquid foundations, mascaras, and eyeliners.
2. Sun Care: High-SPF and sport sunscreens (provides durable wash-off resistance and stabilizes UV filters).

3. Hair Care: Humidity-resistant styling products and frizz-control serums.
4. Skin Care: Protective barrier creams and long-lasting body lotions.

How to Use

1. Solubilization: As a solid resin, Manta A202 must be completely pre-dissolved in a suitable carrier (e.g., volatile silicones like D5/D6, low-viscosity dimethicones, or non-aromatic organic solvents) prior to formulation.
2. Processing: Add the resin powder to the chosen solvent and allow it to soak until fully wetted (no dry white powder remains). Heat the mixture to 80°C - 100°C under continuous stirring until the resin is completely dissolved into a clear, uniform fluid.
3. Recommended Dosage: 2.0% - 10.0% in color cosmetics and sun care formulations; 0.5% - 5.0% in hair care applications.

Packing

In bag

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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