

TECHNICAL DATA SHEET

Product Name: EmuMaker® Dimeticone 10

INCI name: PEG-10 Dimethicone

CAS: 9003-49-0

Chemical classification: Ethoxylated polysiloxane / ethoxylated silicone

Functional category: Silicone emulsifier, co-emulsifier, emollient, texture modifier

Description: PEG-10 Dimethicone is an ethoxylated silicone used in modern formulations as a stable and multifunctional emulsifier with clearly defined emollient properties. Its structure combines a dimethicone backbone with ten ethoxylated units, providing a balanced hydrophilic–lipophilic profile and enabling effective bridging between the aqueous and oil phase in low-viscosity emulsions. Owing to this chemical profile, it functions as an efficient co-emulsifier that promotes the formation of long-term stable O/W systems, as well as specialty water-in-silicone emulsions, particularly when combined with volatile silicones. In skin and hair formulations, it forms a pleasant, silky film that does not burden the epidermis and does not clog pores, while improving slip and spreading properties. Its ability to soften and condition the skin surface makes it suitable for hydrating serums, lightweight creams and products intended for sensitive regions, such as the area around the eyes. In decorative cosmetics, it significantly improves pigment dispersion, resulting in a more uniform texture and stable application, particularly in liquid foundations, concealers and tinted emulsions. Its tendency to stabilise the formulation phase and enhance the sensory profile makes PEG-10 Dimethicone one of the most reliable functional ingredients in products requiring a lightweight, non-greasy feel. Its compatibility with organic oils, silicones and various active ingredients allows formulation flexibility, placing it among the most valued silicone emulsifiers in modern cosmetic chemistry. EmuMaker® Dimeticone 10 is a clear to slightly opalescent fluid of low to medium viscosity, stable across a wide pH range and resistant to oxidation. It is chemically inert, mixes well with silicones and oils, and readily forms fine, stable dispersions in water.

Benefits:

- Enables the formation of stable, lightweight emulsions.

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- Improves spreadability and provides a silky skin feel.
- Enhances dispersion of pigments and active ingredients.
- Highly compatible with numerous silicones and oils.
- Contributes to formulation stability across a wide pH range.
- Does not clog pores and provides a clean, non-greasy finish.

Usage: EmuMaker® Dimeticone 10 is added to the oil or silicone phase and, due to its stability under cold-processing conditions, can be incorporated at lower temperatures. It is used as a co-emulsifier and emollient in the development of lightweight O/W emulsions, silicone fluids and formulations requiring a silky feel and good spreadability. Typically used in moisturising creams, serums, emulgels, fluid lotions, products intended for sensitive regions such as the area around the eyes, decorative cosmetics, sunscreens and hair-care products. Usual dosage levels are 1–5%, where lower concentrations provide a light and smooth application, while higher values enhance stability and deliver a more robust sensory effect.

Natural or synthetic origin: PEG-10 Dimethicone is a synthetic ingredient, obtained by ethoxylation of the dimethicone chain under controlled industrial conditions.

Animal testing: In accordance with European Regulation (EC) No 1223/2009 on cosmetic products, the substance has not been tested on animals. Its safety assessment is based on available toxicological data, scientific literature and validated alternative testing methods (in vitro and in silico). In silico refers to evaluation performed using computer models and simulations rather than laboratory testing on live organisms (in vivo) or cell cultures (in vitro). This note confirms compliance with the ban on animal testing and is provided solely for informative purposes regarding further use of the raw material in cosmetic formulations.

GMO: Non-GMO

Vegan: Contains no ingredients of animal origin.

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