

## TECHNICAL DATA SHEET

**INCI Name:** Cetearyl Alcohol, PEG-20 Stearate

**CAS:** 67762-27-0, 9004-99-3

**Chemical Classification:** Mixture

**Functional Category:** O/W emulsifier, Viscosity modifier ~ increases viscosity, Stabilizer ~ emulsion stabilizer

**Description:** Cetearyl Alcohol & PEG-20 Stearate are a combination of two emulsifiers with exceptional emulsifying properties. This waxy blend allows efficient mixing of oil and water, resulting in stable emulsions. Cetearyl Alcohol is a fatty alcohol derived from natural sources such as coconut and palm oil. It serves multiple functions in cosmetic formulations. As an emollient, it softens the skin, leaving it smooth and pleasant to the touch. Additionally, it acts as a thickener, giving products a rich and creamy texture that enhances their sensory appeal. Its ability to stabilize emulsions helps maintain product homogeneity over time, preventing ingredient separation and ensuring the long-term quality and effectiveness of cosmetic preparations. PEG-20 Stearate, derived from stearic acid and polyethylene glycol, is known for its excellent emulsifying properties. This ingredient ensures uniform distribution of all components within the formulation, optimizing the product's functionality and effectiveness. It also enhances product stability, making it long-lasting and resistant to changes in storage conditions. It appears as flakes or granules, white to pale yellowish, with a waxy texture. The melting point ranges from 50°C to 55°C. While slightly soluble in water, it disperses well during mixing, enabling stable oil-in-water emulsions. It is stable across a wide pH range.

### Benefits:

- Facilitates stable mixing of oil and water in emulsions.
- Provides a creamy texture and pleasant skin feel.
- Enhances formulation stability and prolongs product shelf life.
- Helps hydrate and soften the skin.
- Compatible with a wide range of cosmetic ingredients.
- Increases the efficiency of active ingredients by ensuring their uniform distribution.
- Suitable for various formulations, including lotions, creams, and hair care

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products.

- Derived from plants and environmentally friendly.

**Usage:** The combination of Cetearyl Alcohol and PEG-20 Stearate is added to the oil phase of cosmetic emulsions and heated to 70°C to ensure the emulsifier is evenly distributed and dissolved within the lipid components. Once fully dissolved, the oil phase is mixed with the aqueous phase to form a stable and homogeneous emulsion. Cooling the mixture results in the thickening of the emulsion and its final texture formation. This process ensures the product achieves the desired consistency. The recommended concentrations of this emulsifier vary depending on the specific requirements of the formulation. Generally, for creams, lotions, and balms, concentrations range from 1% to 5%. Lower concentrations, typically between 1% and 2%, help stabilize the emulsion and improve texture, while higher concentrations, around 3% to 5%, are ideal for creating richer, more stable emulsions suitable for products with thicker textures or specific stability demands.

**Animal Testing:** Not tested on animals

**GMO Status:** Non-GMO

**Vegan:** Contains no animal-derived components

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