

TECHNICAL DATA SHEET

Product Name: Cetearyl Alcohol, Polysorbate 60

INCI Name: Cetearyl Alcohol, Polysorbate 60

CAS Number: 67762-27-0, 9005-67-8

Chemical Classification: Mixture

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

INCI Name: Cetearyl Alcohol: (hexadecan-1-ol; octadecan-1-ol); Polysorbate 60 -
(Poly(oxy-1,2-ethanediyl), α -(2-[(1-oxo-9-octadecenyl)oxy]ethyl)- ω -hydroxy-, (Z).

Description: Cetearyl Alcohol & Polysorbate 60 is a self-emulsifying wax (oil-in-water) that differs from traditional self-emulsifying waxes because it is not an anionic emulsifier (sulfated fatty alcohols and soaps), but has a non-ionic nature. This product is excellent for the production of creams, lotions, and ointments, which may or may not be subjected to autoclaving. Cetearyl Alcohol & Polysorbate 60 can withstand heating up to 150°C for two hours, with only minor changes in color and a weight loss of about 2%, causing slight solidification. When heated under pressure for 45 minutes, the pH of the emulsion changes by only two-tenths. Cetearyl Alcohol & Polysorbate 60 is a complete emulsification system for cosmetic or pharmaceutical products that does not require additional emulsifiers. Liquid or consistent emulsions can be obtained without adding other waxes by simply varying the percentage used, which can range from 3% to 18%. Cetearyl Alcohol & Polysorbate 60 is compatible with cationic, anionic, and non-ionic systems and has good stability in acidic or alkaline environments. It allows the production of simple and cost-effective emulsions and is suitable for systems where anionic emulsifiers are not appropriate. The product comes in the form of white waxy flakes, odorless. It is insoluble in water, dispersible in water and oil. Saponification value 14.0 max. pH value: 5.5-7 (3% solution). HLB value 12-13. Melting point 50-54 °C.

Benefits:

- **Improved Texture:** Creates a creamy and pleasant texture for products that are easy to apply and evenly distribute on the skin or hair.

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- **Hydration:** Maintains the skin hydrated and soft, which is essential for daily skin care.
- **Formulation Stability:** Provides long-lasting emulsion stability, preventing phase separation and extending product shelf life.
- **Formulation Flexibility:** Allows the creation of different product types, from light lotions to rich creams, by simply varying the concentration.
- **Compatibility with Active Ingredients:** Supports the inclusion of a wide range of active ingredients without negatively impacting emulsion stability.

Usage Instructions: The use of emulsifying wax is simple. The wax is heated together with the oil phase of the formulation. Then the heated water phase, which may contain water, hydrolates, or other aqueous ingredients, is added with constant stirring. This combination is then cooled while stirring continuously to ensure a stable emulsion. During cooling, other sensitive active ingredients or fragrances can be added. For light lotions and liquids, a lower concentration of emulsifying wax is used, usually between 3% and 5%. This concentration is sufficient to ensure emulsion stability while the product remains light and quickly absorbed into the skin. Such products are ideal for daily hydration, especially for oily and combination skin, as they do not leave a heavy feeling on the skin. For creams and rich lotions, the emulsifying wax concentration increases to 5% to 10%. This concentration allows for the creation of thicker and more nourishing formulations, ideal for dry and sensitive skin. Creams with higher concentrations of emulsifying wax provide intense hydration and protection, making them suitable for nighttime care or use in colder weather. For products like hair conditioners and masks, the emulsifying wax concentration can range from 15% to 18%. This higher concentration helps achieve the necessary viscosity and allows the product to coat the hair well, providing deep hydration and making detangling easier. These products often leave the hair soft, shiny, and easy to style.

Source of Raw Materials: Coconut oil, vegetable oils, and sorbitol.

Production Method: Cetearyl alcohol is a mixture of fatty alcohols: cetyl and stearyl alcohols obtained by catalytic hydrogenation of triglycerides from vegetable oils and coconut oil. Polysorbate 60 is obtained by esterification of sorbitol with one or three molecules of fatty acids, including stearic, lauric, oleic, and palmitic acids.

Animal Testing: The substance has not been tested on animals.

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GMO: Non-GMO

Vegan: Does not contain animal-derived components.



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