Import and distribution for Serbia: Farmadria DOO
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TECHNICAL DATA SHEET

Product Name: Stearyl Alcohol

INCI Name: Stearyl Alcohol

CAS: 112-92-5

Chemical Classification: Fatty Alcohol

Functional Category: Rheology Modifier, Surfactant ~ Emulsifier

IUPAC Name: Octadecan-1-ol

Description: Stearyl alcohol is a fatty alcohol derived from plant oils, typically coconut or palm oil. It has a solid, waxy texture and is commonly used as an emollient and stabilizer in cosmetic formulations. As an emollient, it aids in softening and hydrating the skin, creating a protective layer that prevents moisture loss. In formulations, it also serves as a thickener, helping achieve the desired product consistency, making them creamier and easier to apply. It further improves the dispersion of other ingredients, maintaining formula stability. Stearyl alcohol is known for its mildly occlusive function, making it a popular choice in moisturizers, lotions, lip balms, and hair products. Its non-ionic nature allows compatibility with anionic, nonionic, amphoteric, and cationic surfactants. White flakes/pastilles. Melting point 56 - 60°C. HLB 15.5 (creates oil-in-water emulsions but to a limited degree). Not water-soluble.

Benefits:

- Softens the skin and provides long-lasting hydration.
- Helps retain moisture by forming a protective layer on the skin.
- Contributes to the creamy texture of products, making application easier.
- Stabilizes the formula, preventing ingredient separation.
- Maintains hair hydration and enhances its appearance.

Usage: Stearyl alcohol is used at concentrations of 1% to 20%, depending on the product type and desired effect. In moisturizers and lotions, it is typically added in a range of 2% to 5%, achieving the appropriate texture and emollient effect, while in hair care products, concentrations can be higher, up to 10%, for added hydration and hair protec-

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tion. In formulations that require a solid or semi-solid structure, such as balms and masks, stearyl alcohol is used in higher concentrations to enhance stability and shape retention. It is added during the heating phase, melting alongside other lipids and emulsifiers, to ensure a uniform final product consistency.

Source of Raw Materials: Coconut oil and plant oils

Production Process: Stearyl alcohol is a mixture of fatty alcohols: 1-octadecanol, 1-hexadecanol, and 1-eicosanol. These are obtained through the catalytic hydrogenation of triglycerides from plant and coconut oils, followed by oxidation to form a growing ethylene oligomer chain with the aid of a triethylaluminum catalyst.

Animal Testing: Substance not tested on animals

GMO Status: Non-GMO

Vegan Status: Contains no animal-derived components

Storage: Store in a dry, cool place and protect from moisture.

Source Origin: Italy