

TECHNICAL DATA SHEET

Product Name: Cetearyl Ethylhexanoate

INCI Name: Cetyl Ethylhexanoate

CAS Number: 90411-68-0

Chemical Classification: Ester

Functional Category: Skin conditioning agent - emollient

IUPAC Name: Hexanoic acid, 2-ethyl-, C16-18-alkyl esters

Chemical-Physical Properties: Cetearyl Ethylhexanoate is a chemical compound composed of cetearyl alcohol and ethylhexanoic acid. Its structure is based on an ester bond between cetearyl alcohol, which has a long-chain structure with a hydroxyl (-OH) group, and ethylhexanoic acid, which provides hydrophobicity to the compound. The ester bond is formed by the condensation of alcohol and carboxyl groups, creating a stable molecular structure. The functional groups of this compound are crucial for its effectiveness. The ester bond contributes to stability and resistance to hydrolysis, allowing the compound to remain effective in various formulations. The long-chain alkyl parts enhance lipophilicity, resulting in a soft and smooth feel on the skin. Due to its chemical characteristics, cetearyl ethylhexanoate is an excellent emollient, providing the skin with a silky feel without leaving a greasy residue. Its structure allows good compatibility with other lipid components in cosmetic formulations, improving the overall texture and stability of the product. This liquid is odorless and colorless, insoluble in water but blends well with vegetable, mineral, and synthetic oils and fats. Typical characteristics include a viscosity (at 20°C) of less than 20 mPa, a saponification value between 140 and 155, and a refractive index (at 20°C) ranging from 1.4420 to 1.4480.

Description: Cetearyl Ethylhexanoate is an ester derivative of cetearyl alcohol and ethylhexanoic acid. In the cosmetics industry, it is used as an emollient, which helps soften and hydrate the skin. This ingredient is popular for its light and non-sticky texture that absorbs quickly, leaving the skin smooth and silky to the touch. Its application in products such as creams, lotions, balms, and serums enables better distribution and absorption of other active ingredients. It also enhances the stability of formulations, preventing the separation of oil and water in emulsions, making it ideal for use in

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various cosmetic products, including those for facial, body, and hair care. Additionally, it is non-comedogenic, meaning it does not clog pores and is therefore suitable for sensitive skin prone to acne.

Benefits:

- **Emollient Properties:** Softens and hydrates the skin, leaving it smooth and silky. It helps create a protective layer that prevents moisture loss, which is especially beneficial for dry and dehydrated skin.

- **Improves Product Texture:** Enhances the texture of cosmetic products, making them easier to apply and more pleasant to use.

- **Quick Absorption:** Absorbs quickly into the skin without leaving a greasy residue, ideal for products intended for daily care and for oily skin.

- **Does Not Clog Pores:** As a non-comedogenic ingredient, it does not clog pores, making it suitable for use by people with problematic, acne-prone skin.

- **Compatibility with Other Ingredients:** Due to its chemical structure, it is compatible with many other lipid components and active ingredients, making it versatile for use in various formulations.

- **Enhances Formulation Stability:** Contributes to the stability of emulsions, preventing oil and water separation. This is particularly important for the long-term effectiveness and quality of cosmetic products.

- **Hair Care:** Helps soften and hydrate the hair, making it shiny and easier to style. It provides a light, non-sticky feel that does not weigh down the hair.

Usage: Cetearyl Ethylhexanoate is used in a variety of cosmetic products due to its emollient properties and ability to improve texture and skin feel. In moisturizing creams and lotions, this ingredient contributes to creating a smooth and even texture, allowing easier application and quick absorption. It is typically used at concentrations of 1% to 5%, providing long-lasting hydration without a greasy feel. In lip balms and body butters, its ability to soften and protect the skin makes it suitable for use in slightly higher concentrations, between 5% and 10%, achieving a richer texture that is easy to apply. For serums and light hydrating gels, concentrations of 1% to 3% are sufficient to achieve the desired effect, with cetearyl ethylhexanoate improving the distribution of active ingredients and providing a smooth feel on the skin without clogging pores. In hair care formulations, such as conditioners and masks, it is used in concentrations of 2% to 5%, helping to soften and hydrate the hair, making it silky and shiny without

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weighing it down. This ingredient is stable when stored in a closed container in a cool, dry place. It is intended for external use only.

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

GMO: Not GMO

Vegan: Does not contain animal-derived components



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