

TECHNICAL DATA SHEET

Product name: Behentrimonium Methosulfate & Cetearyl alcohol (cetyl alcohol + stearyl alcohol)

INCI name: Behentrimonium Methosulfate, Cetearyl Alcohol

CAS: 81646-13-1, 67762-27-0/8005-44-5

Chemical classification: Mixture

Functional category: Viscosity modifiers ~ increases viscosity, surfactant ~ foam booster, stabilizer ~ emulsion stabilizer, opacifying agent/pearlescent ingredient that provides a pearly effect, hair conditioner, antistatic agent

Description: A mixture of natural, cationic, self-emulsifying wax and quaternary conditioner. The product is composed of 75% cetearyl alcohol (a mixture of cetyl alcohol and stearyl alcohol) and 25% behentrimonium methosulfate. Cetearyl alcohol is a fatty alcohol derived from natural sources (coconut and palm oils), and behentrimonium methosulfate is obtained from rapeseed oil. Cetearyl alcohol is used in cosmetics as an emollient, thickener, and stabilizer, while behentrimonium methosulfate acts as a conditioning agent and emulsifier. This combination creates an emulsification system with unique characteristics. In creams and lotions, it can be used alone as the sole emulsifier, making it an excellent choice for challenging emulsification systems, even those containing high levels of silicone. Due to its cationic nature, it adheres to hair and skin, providing excellent conditioning for hair care and a soft elegant feel in skincare. It can be utilized in rinse-off conditioners, leave-on conditioners, and detangling sprays. The product is in the form of whitish flakes with a mild fragrance. HLB value = 15 (forms O/W emulsions). pH value: 5-7 (2% solution).

Benefits:

- Behentrimonium Methosulfate reduces frizz and improves hair manageability. It imparts softness to the hair by smoothing the hair cuticle, aiding in reducing static electricity, especially beneficial for unruly or curly hair
- BTM-CAT helps to blend water and oil components in cosmetic formulations, creating stable emulsions like creams and lotions
- Considered a mild ingredient, BTM-CAT is suitable for sensitive skin and hair

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types, commonly used in both leave-on and rinse-off hair conditioners

- Cetearyl alcohol, derived from natural sources like coconut and palm oil, is a good emollient, providing moisture to the skin and hair, making them soft and smooth
- In formulations such as creams and lotions, cetearyl alcohol enhances product texture, providing a denser and luxurious feel. It aids in stabilizing emulsions, preventing the separation of oil and water components in cosmetic products
- Cetearyl alcohol improves product spreadability and imparts a pleasant, non-sticky feel to formulations.

Usage: Preheat or melt before use. Typical concentrations in formulations range from 2-10%. It produces cationic emulsions with a soft, powdery sensation. An excellent stabilizer and thickener capable of emulsifying up to 50% silicone. Used in skincare and hair care products, particularly suitable for leave-on products. For external use only.

Applications: Moisturizing creams and lotions, silicone emulsions, antiperspirants and deodorants, various hair care products (conditioners, hair dyes, relaxers, leave-on treatments).

Derived from: Canola oil (rapeseed oil), coconut oil, and plant oils.

Method of production: Behentrimonium methosulfate is derived from fatty acids in canola oil, quaternized through the alkylation of tertiary amines to obtain a quaternary ammonium compound. Cetearyl alcohol is a blend of fatty alcohols, cetyl alcohol, and stearyl alcohol, obtained through the catalytic hydrogenation of triglycerides from plant and coconut oils. Oxidation occurs with the aid of a triethylaluminum catalyst

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

GMO: Not genetically modified.

Vegan: Does not contain animal-derived components.

Alternative to Behentrimonium Methosulfate: Behentrimonium Chloride, Cetrimonium Chloride.

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