

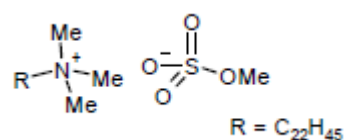
Technical Data Sheet

BTMS PALM FREE

Cationic surfactant for the cosmetic industry

Chemical name	Behenyltrimethylammoniummethosulfate
INCI	Behentrimonium Methosulfate

Chemical structure



Product properties ¹

Appearance (20 °C)	Pale yellow pellets
Odour	characteristic

Chemical and physical data:

pH-value (1% active substance in IPA / water 1:1)	7.0 - 9.0
Active content	78.0 – 82.0 %
Mean molecular weight	476 g/mol
Hazen color (50% prod. + 40% IPA + 10% water)	max. 250
Water content	max. 3.5 %
Isopropanol	approx. 17 %
Amine + amine salt	max. 2.5 %

Uses

BTMS PALM FREE is used mainly in cream-type hair conditioners and hair replenishing treatments. The concentration required depends on the hair. The more

¹ These characteristics are for guidance only and not to be taken as product specification. The tolerances are given in the product specification sheet. For further product properties, specifications, safety and ecological data, please refer to the MSDS.

damaged the hair is the more BTMS PALM FREE will be used to achieve best effect, starting at about 0.5% up to 2.0%, relative to the active substance. Other possible applications are in the manufacture of antistatic fixatives for permanent waving, hair lotions, shampoos and styling creams. As a cationic surfactant, BTMS PALM FREE is adsorbed onto negatively charged surfaces without leaving a visible film, for example on the hair. Because of this and its associated properties, BTMS PALM FREE is especially suitable as an active ingredient for hair cosmetics. BTMS PALM FREE offers a superb softening effect for thick and hard to manage hair. The antistatic effect of BTMS PALM FREE is also noteworthy.

Application properties

BTMS PALM FREE is adsorbed onto the hair from aqueous and alcoholic solutions as well as from emulsions (dispersions) also in combination with other additives, such as film-forming agents and fatty components, and, because of the reduction in surface resistance, it prevents the hair flying after combing. Hair damaged by bleaching, permanent waving or excessive degreasing tends to mat. BTMS PALM FREE, used in cream aftertreatment preparations, considerably improves the wet combing properties and greatly improves the condition of the hair.

Compatibility

BTMS PALM FREE can be used in combination with other cationic surfactants to allow special effects with regard to wet and dry combing properties and the feel of the shampooed hair.

BTMS PALM FREE is compatible with nonionic surfactants. It reacts with anionic surfactants by forming electroneutral salts; most of these are only sparingly soluble in water but stable solutions can be obtained by using an excess of an anionic compound.

No signs of incompatibility were observed with mixtures consisting of BTMS PALM FREE and commercial film-forming agents such as polyvinyl pyrrolidone, PVA and PVP/VA.

pH stability

As a quaternary ammonium salt BTMS PALM FREE possesses excellent stability over a wide pH range. It differs from tertiary amines in that the cation persists also in alkaline medium.

Solubility

BTMS PALM FREE is soluble in warm water but after cooling down BTMS PALM FREE precipitates.