

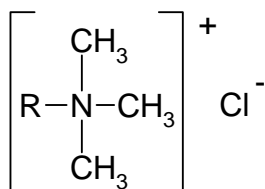
## ® Genamin CTAC

Cationic surfactant for the cosmetic industry

### Chemical name

Cetyl trimethyl ammonium chloride

### General formula



R = predominantly C<sub>16</sub>

### INCI designation

Cetrimonium Chloride

### Product properties <sup>\*)</sup>

#### Appearance (20 °C)

Clear liquid

#### Odour

Faint

#### Chemical and physical data

Active substance 29.0 ± 1.0 %

Mean molecular weight 319 g•mol<sup>-1</sup>

Apha number 100 max.

pH-value (1% active substance in water) 5.0 - 7.0

Ash 0.5 % max.

Free amine + amine hydrochloride 0.8 % max.

### Uses

Genamin CTAC is used mainly in creme rinses and hair conditioners. The concentration required depends on the hair. The more damaged the hair is the more Genamin CTAC 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.

### Applications

As a cationic surfactant, Genamin CTAC is adsorbed onto negatively charged surfaces without leaving a visible film, for example on the hair. Because of this and its associated properties, Genamin CTAC is especially suitable as an active ingredient for hair cosmetics. Genamin CTAC considerably improves the wet and dry combing properties and offers a good softening effect for normal hair. Genamin CTAC has a superb antistatic effect.

### Application properties

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

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As a liquid Genamin CTAC is easy to formulate into a broad range of cosmetic preparations.

Genamin CTAC is absorbed 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, prevents the hair flying after combing.

Hair damaged by bleaching, permanent waving or excessive degreasing tends to mat. Genamin CTAC, used in cream aftertreatment preparations, considerably improves the wet combing properties and the condition of the hair.

Unlike other cationic surfactants, Genamin CTAC possesses excellent foaming properties.

## Compatibility

Genamin CTAC 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.

Genamin CTAC is compatible with nonionic and amphoteric surfactants. Genamin CTAC 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 Genamin CTAC and commercial film-forming agents such as polyvinyl pyrrolidone, PVA and PVP/VA. Genamin CTAC is also compatible with protein derivatives, especially in the acid pH range.

This information is based on our present state of knowledge and is intended to provide general notes on our products and their uses. It should not therefore be construed as guaranteeing specific properties of the products described on their suitability for a particular application. Any existing industrial property rights must be observed. The quality of our products is guaranteed under our General Conditions of Sale.

TH 10235

## pH stability

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

## Solubility

Genamin CTAC is miscible with water in any ratio.

## Processing instructions

Genamin CTAC is mixed together with the emulsifier, especially nonionic are well suited, consistency modifier and any oils used at approx. 75 °C. The aqueous phase is heated separately and added while stirring the quat/consistency modifier/oil phase. Active substances and perfume oils should be added only after the mixture has cooled down to about 35 °C.

## Storage instructions

The product must be protected from excessively high and low temperatures during storage.

Further information on handling, storage and dispatch is given in the EC safety data sheet.