

Akema Fine Chemicals S.r.I. Via Puglie, 12 > 47853 Coriano (RN) Italy Tel. +39 0541 657077 > Fax +39 0541 657134 info@akema.it > www.akema.it



# Kem E

**INCI composition**: Benzyl Alcohol Water Potassium Sorbate Sodium Benzoate

Appearance: Clear pale yellow liquid

#### Description

Kem E is a broad spectrum preservative blend based on nature-identical substances. This system represents a gentle on the skin and effective alternative in cosmetic preservation, designed to replace other preservatives which are currently questioned.

With global approval for every personal care application, Kem E can be used for the protection of a wide range of cosmetics with acidic pH. Kem E is permitted in natural & organic cosmetics in accordance with the major certification standards (COSMOS, Ecocert, Soil Association, BDIH, ICEA, NaTrue).

## Antimicrobial activity

Kem E is an optimised combination of the antibacterial properties of Benzyl alcohol with the antifungals Potassium sorbate and Sodium benzoate. It is very effective against Gram-negative bacteria and Grampositive bacteria as well as against yeasts and moulds.

Due to the presence of salts of organic acids, the antimicrobial activity increases when the pH is lowered, with the best effect at acid pH below 5.5.

## **Properties and stability**

Kem E is very soluble in glycerin and glycols, soluble in water, slightly soluble in alcohols. Stable to discoloration and low storage temperature, may tolerate working temperature up to 80°C. It should be used in the acid pH range from 3 to 5.5.

## Applications

Kem E can be used to protect a variety of cosmetic products against microbial growth, particularly aqueous systems and emulsions. It is also allowed for use as synthetic preservative in natural cosmetics according to main certification bodies. Typical personal care applications include:

- *Hair care*: gels, shampoos, lotions, conditioners, mousses.
- Body and face care: serums, tonics, gels, lotions, creams, wipes.
- *Make-up*: foundations, wipes, powders.
- *Shaving products*: shave soaps, gels, aftershave balms, lotions, creams.
- Sun products: sunscreens, suntans, aftersuns.
- *Bath products*: shower gels, bubble baths, handcleaners, intimate, oils, powders, wipes.
- *Baby care*: shampoos, bath products, lotions, creams, oils, powders, wipes.
- Raw materials: surfactants, vegetal extracts.

#### Use levels

Kem E may be used at concentrations of 0.5-1.0% with no additional preservatives.



Akema Fine Chemicals S.r.I. Via Puglie, 12 > 47853 Coriano (RN) Italy Tel. +39 0541 657077 > Fax +39 0541 657134 info@akema.it > www.akema.it



## Regulatory approval

The components of Kem E were extensively tested and used in cosmetics, pharmaceuticals & foods. The global regulatory acceptance allows formulators to create cosmetics for worldwide distribution and for natural market. Kem E is approved in *EU, USA, Brazil, Latin America, China, Japan & ASEAN countries* in all categories of cosmetics for both rinse-off & leave-on.

## **Technical support**

Our microbiological laboratory may support product preservation with a challenge testing service; the optimal preservation is suggested on the basis of tests conducted on customer's formulations. For further information, documentation and samples please contact us.

#### Highlights

- ✓ Gentle to the skin & strong broad spectrum preservation.
- ✓ Globally accepted cosmetic preservatives.
- ✓ Contains no controversial preservatives.
- ✓ Water soluble.
- ✓ Natural certified cosmetics.
- ✓ Cost-effective.

The information given in this publication is based on our best knowledge and experience. We do not assume any liability in connection with its use. It is responsibility of the user to comply with all applicable laws and regulations, and observe all third party rights.