



## **Kem BS**

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

**Appearance:** Clear pale yellow liquid

### **Description**

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Kem BS is a broad spectrum preserving system based on food-grade preservatives that represents a gentle on skin and effective alternative for mild & natural cosmetics.

Suitable for use in a wide variety of cosmetics with acid pH up to 5.5, it is globally approved without restrictions in rinse-off & leave-on applications.

All the ingredients are nature-identical and food-grade, it is approved for use in natural & organic cosmetics according to the major certification standards (COSMOS Ecocert, Soil Association, BDIH, ICEA, NaTrue).

### **Antimicrobial activity**

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Kem BS is a balanced combination of the antibacterial & antifungal properties of sodium benzoate with the antifungal action of potassium sorbate, providing broad spectrum activity against bacteria with particular high activity on yeasts and moulds.

Since it is based on salts of organic acids, which are active in the undissociated form, Kem BS exhibits the maximum performance in acid formulations with pH below 5.5.

### **Properties and stability**

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Kem BS is very soluble in water, glycerin and glycols; it is slightly soluble in alcohols. Stable to discoloration and low storage temperature, may tolerate working temperature up to 80°C. The activity depends on the pH of the formulation, with the maximum activity in the acid pH from 2 or lower to 5.5.

### **Applications**

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Kem BS can be used to protect a variety of cosmetics against microbial growth, in particular aqueous systems & emulsions. The final pH must be adjusted to 5.5 max. It is permitted for the preservation of natural cosmetics according to all certification bodies. Typical cosmetic applications include:

- *Hair care*: gels, shampoos, lotions, conditioners, mousses.
- *Body & 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**

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Kem BS may be used at concentrations of 0.2-1.0% with no additional preservatives in more simple cosmetics. In formulations with higher bacterial contamination risk may need combination with other preservatives.



### **Regulatory approval**

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Sodium benzoate and potassium sorbate have been extensively tested and widely used in cosmetic, pharmaceutical products and are the most used food preservatives. Their large regulatory acceptance allows formulators to create cosmetics for worldwide distribution and natural market.

Kem BS is approved in *EU, USA, Brazil, Latin America, Japan, China & ASEAN* countries in all categories of cosmetics for both rinse-off & leave-on.

### **Technical support**

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Our microbiological laboratory can offer microbial challenge tests to ensure the optimal preservation of customer formulations.

For further information, documentation and samples please contact us.