



## **Kem BS**

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

**Appearance:** Clear yellowish to brownish liquid

### **Description**

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*Kem BS* is a popular 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 comprised between 2 and 5.5, it is globally approved without restrictions in rinse-off & leave-on applications.

All the ingredients of *Kem BS* are nature-identical and it can be used 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 agent potassium sorbate, providing broad spectrum activity on bacteria and with particularly high activity on yeasts & moulds.

Due to the presence of salts of organic acids, the activity of *Kem BS* depends on the final pH of cosmetics, with the maximum performance in acid formulations with pH from 2 to 5.5.

### **Properties & stability**

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*Kem BS* is very soluble in water, glycerin and glycols; it is slightly soluble in alcohols. Stable to low storage temperature, tolerates not prolonged process temperature up to 80°C.

### **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% in simple cosmetics with low contamination risk. In formulations with higher risk of bacterial contamination 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 for 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. 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**

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- ✓ Gentle system based on food-grade preservatives.
- ✓ Highly effective against yeasts & moulds.
- ✓ Popular & globally accepted cosmetic preservative.
- ✓ Contains no controversial preservatives.
- ✓ For natural certified cosmetics.
- ✓ Highly water soluble.
- ✓ Very cost-effective.