



## Kem EHB

**INCI name:** *Benzyl alcohol,*  
*Ethylhexylglycerin*

**Appearance:** Clear colourless liquid with mild characteristic odour

### Description

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Kem EHB is a liquid preservative based on the widely accepted cosmetic preservative Benzyl alcohol boosted by the multifunctional ingredient Ethylhexylglycerin.

This optimized combination provides broad spectrum protection against bacteria, yeasts & moulds to a large variety of cosmetics without pH restrictions.

Kem EHB represents a largely used and efficient alternative in cosmetic preservation that suit the needs of modern cosmetics for safety, efficacy, global approval without questioned ingredients.

### Antimicrobial activity

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Kem EHB is a broad spectrum preservative blend where the antimicrobial activity of Benzyl alcohol is enhanced by the boosting effect of Ethylhexylglycerin.

Ethylhexylglycerin is a glyceryl ether, a multifunctional additive that is widely used to boost preservative efficacy, while adds several benefits to cosmetics as moisturizing, deodorising agent, skin feel enhancer and fragrance stabilizer. Ethylhexylglycerin decreases the surface tension on the cell membrane of microorganisms improving the antimicrobial efficacy of Benzyl alcohol. Therefore Ethylhexylglycerin boosts the performance of Benzyl alcohol and helps to reduce the amount of preservative needed, optimising the safety of preservation.

### Properties and stability

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Kem EHB is very soluble in alcohol, glycerin and glycols, soluble in water to approx. 1% and soluble in oils. It is a colourless liquid with mild sweet odour, very stable & fully effective in the pH range 3-12, stable to discoloration and well compatible with cosmetic raw materials. May tolerate short process temperature up to 80°C.

### Applications

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Kem EHB can be used for the preservation of a variety of aqueous systems, emulsions & anhydrous systems, besides it improves the skin feel of cosmetics. Typical applications include:

- *Hair care:* shampoos, gels, lotions, conditioners, mousses, colourants, hair relaxers.
- *Face & eye care:* serums, tonics, gels, lotions, creams, cleansers, masks, oils, sticks, wipes.
- *Make-up:* foundations, mascaras, eyeshadows, eyeliners, lipsticks, lip glosses, powders, wipes.
- *Shaving products:* shaving creams, aftershave, lotions, creams.
- *Body, foot & hand care:* gels, lotions, creams, exfoliants, oils, wipes.
- *Sun care:* sunscreens, suntans, aftersuns, gels, milks, creams, oils, sprays, roll ons.
- *Bath products:* shower gels, bubble baths, hand-cleaners, intimate, oils, powders.
- *Baby care:* shampoos, bath products, lotions, creams, pastes, oils, powders, wipes.
- *Wet wipes:* baby wipes, hand wipes, face wipes, body wipes, feminine wipes, sun protection wipes.
- *Deodorant & antiperspirants:* solutions, gels, creams, pump sprays, sticks.
- *Raw materials:* surfactants, vegetal extracts.



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### **Use levels**

Kem EHB can be used at 0.5-1.0% alone and at lower levels reduces the amount of other preservatives. In more difficult to preserve cosmetics and formulations with high surfactant load, the association with additional antifungal agents can be needed.

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### **Regulatory approval**

The components of Kem EHB have excellent safety & toxicological profiles and are worldwide approved in cosmetics. This preservative is permitted in *EU, USA, Brazil, Latin America, China & ASEAN countries* up to 1.1% in all personal care categories without restrictions. It is permitted in *Japan* except for cosmetics that come into contact with mucous membranes (eyeliners, oral & bath preparations).

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### **Technical support**

Our microbiological laboratory supports customers during product development and help to achieve the most adequate preservation. Challenge testing can be offered to determine the optimal level of preservative in finished cosmetics.

For further information, documentation and samples please contact us.

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### **Highlights**

- ✓ Broad spectrum & efficient cosmetic preservation
- ✓ Based on safe & worldwide accepted ingredients
- ✓ No effects on the colour & odour of final cosmetics
- ✓ Effective in broad pH range from 3 to 12
- ✓ Versatile system for many cosmetic applications
- ✓ Reduced use levels & synergistic with other preservatives
- ✓ Cost effective