



## Kem Diol 10

**INCI name:** *Phenoxyethanol,  
Caprylyl glycol*

**Appearance:** Clear colourless and almost odourless liquid

### Description

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*Kem Diol 10* is a liquid preservative based on the globally accepted preservative Phenoxyethanol enhanced by the multifunctional Caprylyl glycol that has an emollient and preserving boosting effect. This combination provides broad spectrum protection to a variety of cosmetics without pH restrictions and with no impact on the odour, colour and viscosity of formulations.

*Kem Diol 10* is an efficient and versatile alternative in cosmetic preservation without controversial ingredients that meets the stringent demands of modern market for safety, efficacy and global approval.

### Antimicrobial activity

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*Kem Diol 10* is a broad spectrum preservative active against bacteria & yeasts with limited action on moulds. In this system the Caprylyl glycol boosts the antimicrobial performance of Phenoxyethanol and help to decrease the amount of preservative needed. Caprylyl glycol is a C8 linear diol that acts as preservative booster, it destabilizes the microbial membrane and promotes the entry of phenoxyethanol into the microbial cell.

### Properties & stability

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*Kem Diol 10* is very soluble in alcohol, glycerin and glycols; soluble in water to approx. 2% and sparingly soluble in oils.

Colourless and practically odourless, it is effective in wide pH range from 3 to 8 and generally well compatible with other cosmetic raw materials. May tolerate working temperature up to 80°C.

### Applications

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*Kem Diol 10* can be used for the preservation of a wide variety of aqueous cosmetics, emulsions and anhydrous systems. Improves the skin feel of personal care products with no significant reduction of final viscosity. Typical applications include:

- *Hair care:* gels, shampoos, lotions, conditioners, mousses, colourants.
- *Face & body care:* serums, tonics, gels, lotions, creams, cleansers, oils, sticks.
- *Make-up:* foundations, eyeshadows, eyeliners, mascaras, sticks, powders.
- *Sun care:* sunscreens, suntans, aftersuns, gels, milks, creams, oils, sprays, roll-ons.
- *Bath products:* shower gels, bubble baths, hand-cleaners, intimates, oils, powders.
- *Baby care:* shampoos, bath products, lotions, creams, pastes, oils, powders.
- *Raw materials:* surfactants, oils.

### Use levels

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*Kem Diol 10* is generally added at 0.5-1.0%. In simple formulations can be used alone or in combination with other preservative/antimicrobial agents. In more complex formulations it should be used in combination with antifungal agents and adequately challenge tested.



### **Regulatory approval**

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The components of *Kem Diol 10* are widely used cosmetic ingredients with well-documented safety & toxicological profiles that are worldwide approved in personal care. This preservative is permitted in *EU, USA, Brazil, Latin America, Japan, China & ASEAN countries* up to 1.1% in all personal care categories without restrictions.

### **Technical support**

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Our microbiological laboratory supports the selection of the most adequate preservation. Challenge testing can be offered to determine the optimal level of preservative in customer's formulations. For further information, documentation and samples please contact us.

### **Highlights**

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- ✓ Broad spectrum & efficient cosmetic preservation.
- ✓ Based on largely used and non-questioned ingredients.
- ✓ Versatile & cost effective alternative.
- ✓ Colourless & odourless liquid not sensitive to pH.
- ✓ No significant effects on final viscosity.
- ✓ Soluble in water at the use levels.
- ✓ For clear aqueous cosmetics, solutions & gels.
- ✓ Globally approved with no restrictions.