



## Kemidant K

**INCI composition:** DMDM Hydantoin  
Potassium sorbate  
Water

**Appearance:** Clear pale yellow liquid

### Overview

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Kemidant K is a complete preservative blend based on the long used cosmetic ingredients DMDM Hydantoin and Potassium sorbate. It is an optimised aqueous combination with broad spectrum activity and high antimicrobial efficacy designed for the preservation of a wide variety of cosmetics in the acid pH range.

Kemidant K represents an ideal alternative for formulators looking for a strong and easy to work preservative, effective at lower levels and with reduced in-use cost. It is particularly recommended in most difficult to preserve cosmetics where other mild preservatives failed.

### Antimicrobial activity

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Kemidant K is highly effective against Gram-negative bacteria, Gram-positive bacteria, yeasts & moulds. The combination of the high antifungal activity of Potassium sorbate with the strong antibacterial activity of DMDM Hydantoin results in a broad spectrum preservative system bactericidal at 0.1% and fungicidal at 0.4%.

### Properties and stability

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Kemidant K is very soluble in water, alcohol, glycols, glycerin, not soluble in oils and apolar solvents. Stable to discoloration and low storage temperature.

Due to the presence of a salt of organic acid the product exhibits its maximum antimicrobial activity under acid conditions, preferably in the pH range 3-6.

### Applications

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Kemidant K provides the benefits of a liquid blend which can be easily incorporated in a wide range of cosmetic products. For its high water solubility it is particularly suggested in aqueous formulations, surfactants-based and emulsions. Typical applications include:

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

### Use levels

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Kemidant K can be used at 0.2-0.6% alone, also in more complex formulations.

### Regulatory approval

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*EU, USA, Latin America, China & ASEAN:* allowed without restrictions.  
*Japan:* allowed in rinse-off products with warning label.



### **Technical support**

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Our microbiology laboratory supports customers during the selection of the preservative system and helps to solve preservation issue. The optimal level of preservative to be used is suggested on the basis of challenge tests on single formulations.

For further information, documentation and samples please contact us.

### **Highlights**

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- ✓ Highly effective broad spectrum preservation
- ✓ Reduced use levels
- ✓ Ideal in most difficult to preserve cosmetics where other mild preservatives failed
- ✓ Highly water soluble & easy to work
- ✓ Stable to discoloration & freezing temperature
- ✓ Globally approved in rinse-off cosmetics
- ✓ Very cost-effective