

## ***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 and safe cosmetic ingredients DMDM Hydantoin and Potassium sorbate. Optimised aqueous combination with broad spectrum activity and high antimicrobial efficacy designed for the preservation of a wide variety of cosmetics in the acidic pH range.

Kemidant K represents an ideal alternative for formulators needing to replace parabens, effective at lower levels and with reduced in-use cost.

### **Antimicrobial activity**

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Kemidant K is highly effective against Gram-negative bacteria Gram-positive bacteria, yeasts and molds. The combination of the antifungal activity of Potassium sorbate with the 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 an organic acid the antimicrobial activity is higher under acidic 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 and 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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*USA and EU:* allowed without restrictions.

*Japan:* allowed in rinse-off products with warning label.

### **Technical support**

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Akema 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 sample please contact us.