

Akema Fine Chemicals S.r.I.

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Kemidant L

INCI name: DMDM Hydantoin

Water

O OH

Appearance: Clear colourless liquid

Overview

Kemidant L is 55% water solution of DMDM Hydantoin, one of the most popular and largely used cosmetic preservatives for over 30 years. Extremely easy to use option, highly effective in wide pH range, it does not modify the appearance of finished cosmetics.

Antimicrobial activity

Kemidant L is one of the most powerful preservative agent against Gram-negative bacteria & Gram-positive bacteria; it is also active against moulds.

Properties & stability

Kemidant L is very soluble in water and polar solvents, not soluble in oils and apolar solvents. It is stable and active in the pH range 3-9, and has no effects on colour, odour & viscosity of cosmetics. It is compatible with anionic, cationic & non ionic cosmetic ingredients. May tolerate working temperature up to 80°C. Prolonged exposition to temperature <10°C may cause a crystallization of the solution.

Applications

Kemidant L can be easily incorporated in a wide range of cosmetic formulations. For its high water solubility it is particularly suggested in aqueous formulations & emulsions. Typical applications include:

- Hair care: shampoos, conditioners, gels, mousses.
- Body & face care: toners, gels, lotions, creams, wipes.
- Make-up: foundations, eyeliners, mascaras, powders, wipes.
- Sun products: sunscreens, suntans, aftersuns.
- Bath products: shower gels, bubble baths, handcleaners, intimate, wipes.
- Baby care: shampoos, bath products, gels, lotions, creams, powders, wipes.
- Raw materials: surfactants.

Use levels

Kemidant L is normally used at 0.2-0.5% alone or in combination with antifungals in more complex formulations. It is synergistic with parabens, IPBC, other preservatives & preservative boosters.



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Regulatory approval

Widely used cosmetic preservatives for decades, tested and approved by FDA & EU scientific committees. In *EU, USA, Latin America, China & ASEAN* it is allowed up to 1.09% without restrictions. In *Japan* it is allowed up to 0.54% in rinse-off products with warning label.

Technical support

Our microbiological laboratory can support customers in the preservative choice; the optimal preservation is suggested on the basis of challenge tests conducted on specific cosmetics. For further information, documentation and samples please contact us.

Highlights

- ✓ Highest preservation efficacy against bacteria.
- ✓ Long history of safe cosmetic use.
- ✓ Largely used in wide range of cosmetics.
- ✓ Easy to use.
- ✓ Not pH sensitive and effective in pH range 3-9.
- ✓ Highly soluble in water.
- ✓ Does not change odour, colour & viscosity of finished cosmetics.
- ✓ Low use levels & minimum final costs.

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