

# PHMB (POLYAMINOPROPYL BIGUANIDE)

Preservatives For Focused Protection



## INCI

Polyaminopropyl Biguanide

## CAS number

27083-27-8

## Appearance

Colorless to pale yellow liquid

## Solubility

Soluble in water, alcohols and glycols.

Insoluble in oils and hydrocarbons

## Stability

Stable in presence of light, over the pH range 4 to 10 and up to 80°C

PHMB is an aqueous-based cationic preservative, active against spoilage bacteria and is compatible with a wide range of aqueous based cosmetics and personal care formulations. Its gentle nature makes it ideal for both rinse-off and leave-on applications like shampoo (with cationic, nonionic or amphoteric surfactants), hair care products, skin creams, skin lotions, baby products, and wet wipes.

PHMB is available as a 20% water solution. The recommended use level is up to 0.3% active (i.e. 1.5% of the 20% water solution). It is incompatible with anionic surfactants and soaps, should be kept at a pH below 8.0 and should not be heated above 80°C.

When mildness is an important feature for your product, PHMB's gentle and protective nature could make it your solution.

## MINIMUM INHIBITION CONCENTRATIONS (MIC) FOR PHMB

Microorganism	Type	MIC (ppm)
Escherichia coli	Bacteria Gram -	5
Pseudomonas aeruginosa	Bacteria Gram -	100
Pseudomonas putida	Bacteria Gram -	25
Bacillus subtilis	Bacteria Gram +	5
Staphylococcus aureus	Bacteria Gram +	1
Streptococcus faecalis	Bacteria Gram +	25
Aspergillus niger	Mold	750
Endomycopsis albicans	Yeast	300
Saccharomyces cerevisiae	Yeast	100