



BULLETIN VC-850

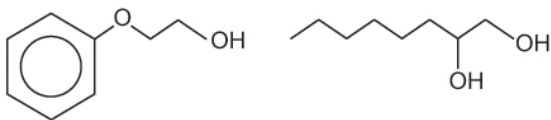
# Optiphen™ preservative

*Preservative for the Cosmetics Industry*

## Product Description

Optiphen preservative contains as antimicrobial active phenoxyethanol. An additional booster increases the broad spectrum activity against micro-organisms. Optiphen preservatives can be used in a variety of cosmetic formulations. The excellent pH compatibility allows use in acidic and slightly alkaline formulations. Optiphen preservative offers effective protection against bacteria, yeast and mold growth while imparting emolliency. Optiphen preservatives can be used alone and functions synergistically with other preservatives. Optiphen preservative is free of parabens, organic halogens, formaldehyde and formaldehyde donors.

## Formula



Phenoxyethanol (and) Caprylyl Glycol

## Suggested Applications

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|---------------------|--|
| Rinse-off-Cosmetics | Optiphen preservative is applicable for use in a variety of rinse off personal care preparations such as shampoos, conditioners, face and body washes etc.   |
| Care-Products       | Optiphen preservative is well suited for high-quality care-cosmetics like creams, emulsions, lotions and gels. On account of its excellent dispensability Optiphen preservative can be used in O/W-emulsions as well as in W/O-emulsions. Suggested applications includes wipes and color cosmetics. |

## Dosage and Processing

Optiphen preservative should be used in cosmetic products at concentrations in the range 0.75% to 1.5%. For the preservation of simple surfactant-products dosages of 0.5% might be sufficient. For the determination of the optimum dosage we recommend a preservation test, as the efficacy of this preservative is highly influenced by the product-matrix. The staff of Ashland Inc.'s microbiological laboratory will be pleased to give customers the appropriate support.

Optiphen preservative can be added at any phase of production. Heating processes up to 80°C are tolerated well. Especially in aqueous products with low contents of emulsifiers intensive stirring is recommended, to achieve a uniform dispersal of the active ingredients.

## Product Properties

### Microbiological Profile

Organism	ATCC	MIC (ppm)
<i>Pseudomonas aeruginosa</i>	9027	2,500
<i>Escherichia coli</i>	8739	2,500
<i>Burkholderia cepacia</i>	25416	2,500
<i>Staphylococcus aureus</i>	6538	5,000
<i>Aspergillus niger</i>	16404	2,500
<i>Candida albicans</i>	10231	5,000

Cidal Minimum Inhibitory Concentration (MIC) is shown in the table above. MIC values were determined by serial dilution in TSB as the lowest active ingredient concentration that inhibited visible growth after an overnight incubation.

### Technical Data

Appearance: colorless to light yellow solution  
 Odor: characteristic  
 pH-Value: not applicable  
 Density 25°C: 1.01 – 1.03 g/ml  
 Solubility (g/100g solvent): Water 1.2; Ethanol >100; isopropanol >100; Ethylene Glycol >100; Propylene Glycol >100; Butylene Glycol; Glycerin >100; and Mineral Oil 0.6.  
 No dispensability problems are to be expected in waterbased systems while using Optiphen™ preservative in usual dosages.

### Stability

Optiphen preservative can be worked into finished products at temperatures between 10°C and 80°C. The pH-tolerance is given for acidic to slight alkaline environment. Strong oxidizing agents, strong acids and alkalis lead to decomposition of the active ingredients.

### Labelling

For information regarding labelling of products and the Risk and Safety phrases or Hazard and Precautionary Statements of Optiphen preservative please seek specific advice from Ashland or refer to the separate Safety Data Sheet (SDS).

### Storage

Storage is recommended in tightly closed original-containers at temperatures between 8°C and 25°C. This material may solidify when stored below 8°C. If solidification occurs, gently heat to 40°C and stir before use to ensure homogeneity

### INCI-Nomenclature

122-99-6                      Phenoxyethanol  
 1117-86-8                    Caprylyl Glycol

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Regulatory requirements governing the use, registration, and approval of preservatives around the world are continually changing and evolving.

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