

BULLETIN VC-851

Optiphen™ Plus preservative

Preservative for the Cosmetics Industry

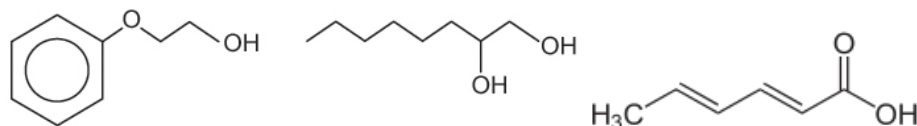
Product Description

Optiphen Plus preservative consists of an active blend of phenoxyethanol and sorbic acid. An additional booster increases the broad spectrum activity against micro-organisms. Optiphen Plus preservative can be used in a variety of cosmetic formulations. Due to the contained sorbic acid, Optiphen Plus preservative performs best in formulations with a slightly acidic pH value (pH 6 or below).

This preservative is effective as a stand-alone system and functions well with other preservatives.

Optiphen Plus preservative is free of parabens, organic halogens, formaldehyde and formaldehyde donors.

Formula



Phenoxyethanol (and) Caprylyl Glycol (and) Sorbic Acid

Suggested Applications

- | | |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rinse-off-Cosmetics | Optiphen Plus 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 Plus preservative is well suited for high-quality care-cosmetics like creams, emulsions, lotions and gels, wipes, if they conform to the necessary pH-conditions. On account of its excellent dispensability Optiphen Plus preservative can be used in O/W-emulsions as well as in W/O-emulsions. |

Dosage and Processing

Optiphen Plus 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 Plus preservative can be added at any phase of production. Heating processes up to 80°C are tolerated well. Optiphen Plus preservative works best when used in formulations with a pH below 6 and is compatible with most ingredients used in the personal care industry.

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

Combining the three ingredients in Optiphen Plus preservative offers effective protection against bacteria, yeast and mould growth while imparting emolliency.

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 1.0; Ethanol; >100; Isopropanol; >100; Ethylene Glycol>100; Propylene Glycol >100; Butylene Glycol >100; Glycerin >100; and Mineral Oil 0.6. No dispensability problems are to be expected in water based systems while using Optiphen Plus preservative in usual dosages.

Stability

Optiphen™ Plus preservative can be worked into finished products at temperatures between 10°C and 80°C. pH-tolerance is given for acidic environment, that also is required for good effectiveness. 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 Plus 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
110-44-1	Sorbic Acid

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

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