



NEOLONE™ PH 100 Preservative

Preservative for Personal Care Products

C.A.S. Reg. No. 122-99-6

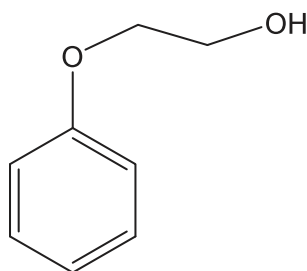
EINECS No. 204-589-7

INCI Adopted Name: Phenoxyethanol

General

NEOLONE™ PH 100 Preservative is a broad spectrum antimicrobial useful for the protection of water based cosmetic and personal care products, including shampoos, hair conditioners, creams, and baby-care products. Due to its effectiveness against a broad spectrum of bacteria, yeast and fungi, and over a wide pH range, 4.0 to 8.0, NEOLONE PH 100 Preservative is well suited to provide protection from contamination encountered in the personal care field. In addition, NEOLONE PH 100 Preservative has both water and oil-solubility.

Structure



Physical Properties

The following are typical physical properties of NEOLONE PH 100 Preservative; **they are not to be considered as product specifications.**

Assay, %.....	99.5 min
Phenol, ppm	7 max
di-ethoxy phenol (DI-EPh), %	0.1 max
Water, %.....	0.1 max
APHA/ Pt-Co.....	10 max
Weight per U.S. Gallon (at 20°C).....	9.26 lb
Boiling Point (760 mmHg, 1.01 bar)	244°C/417°F
Flash Point (Setflash Closed Cup)	119°C/246°F
Solubility, g/100g @ 25°C - solvent in water	3.1 g
water in solvent.....	13.6 g

Special Features and Benefits

When formulated into cosmetic and personal care products, NEOLONE PH 100 Preservative provides the following benefits:

- Effective control against a broad range of bacteria, yeasts, and fungi
- Outstanding performance when used in combination with a wide range of preservatives and fungicides
- Low odor level
- Compatible with most Personal Care ingredients
- Will not impart additional levels of Phenol
- Will not impart unwanted color to a finished product

Antimicrobial Activity

The broad antibacterial spectrum of NEOLONE™ PH 100 Preservative is demonstrated by the minimum inhibitory concentrations (MIC) needed for control of the typical microorganisms shown in Table 1.

Table 1

Organism	MIC (%)
Pseudomonas aeruginosa	0.050
Escherichia coli	0.050
Proteus vulgaris	0.050
Staphylococcus aureus	0.500
Bacillus subtilis	0.350
Bacillus mycooides	0.350
Candida albicans	0.350
Saccharomyces rouxii	0.350
Saccharomyces cerevisiae	0.350
Aspergillus niger	0.350
Penicillium verruculosum	0.350
Cladosporium herbarum	0.350

Reported MIC values demonstrate the spectrum of antimicrobial activity of phenoxyethanol. The MIC test results only demonstrate the innate activity and should not be used as a guide to determine levels to be used in a specific formulation.

Laboratory services

Dow Microbial Control Technical Laboratories, located globally, are available to assist in the determination of optimum use level required for a specific application. While NEOLONE PH 100 Preservative is compatible with most raw materials used in microbiologically susceptible products, Dow Microbial Control can also assist with compatibility assessments for specific applications.

Regulatory Information

European Community Approval Status

Phenoxyethanol is listed in the EU Cosmetics Directive, Annex VI, Part 1 - List of Preservatives which Cosmetic Products May Contain. This maximum authorized use concentration is 1.0% in both rinse-off and leave-on products.

Japan Approval Status

Phenoxyethanol is listed as an approved preservative for cosmetics.

MITI listed.

Toxicology and First Aid

Please refer to the Safety Data Sheet and Product Label.

Handling, Storage and Disposal

Please refer to the Safety Data Sheet. Do not contaminate water, food or feed by storage or disposal.

NEOLONE PH 100 Preservative should be stored at temperatures below 30°C (86°F). Containers should not be exposed to direct sunlight. Storage conditions should also be in conformance with applicable legal, fire, and insurance regulations.

Prior to disposal, the residual contents of NEOLONE™ PH 100 Preservative containers should be drained into the product to be preserved. A small quantity of NEOLONE PH 100 Preservative will likely remain in the container; the container should be triple rinsed and the rinse water should be treated as waste. Excess product and rinse water should be disposed according to local regulations for disposal. To ensure that containers are not reused, they should be pierced before disposal.

Extinguish fires involving NEOLONE PH 100 Preservative with water spray, CO₂, foam, or dry chemical extinguisher.

Product Stewardship

Dow Microbial Control encourages its customers to review their applications of Dow Microbial Control products from the standpoint of human health and environmental quality. To help ensure that Dow Microbial Control products are not used in ways for which they are not intended or tested, Dow Microbial Control personnel are willing to assist customers in dealing with ecological and product safety considerations. Contact your representative if you need any assistance or information. When considering the use of any Dow product in a particular application, review the latest Safety Data Sheet and country-specific product label to ensure the intended use is within the scope of approved uses and can be accomplished safely. Before handling any of the products mentioned in the text, obtain available product safety information and take necessary steps to ensure safety of use.

For further information visit our website:
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Please note that not all products are registered in all regions for all applications. Please contact your local Dow representative for detailed technical information applicable to your individual situation.

USE BIOCIDES SAFELY. ALWAYS READ THE LABEL AND PRODUCT INFORMATION BEFORE USE.



[†]except Indonesia and Vietnam