



NEOLONE™ PH 100 Preservative

Preservative for Personal Care Products

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

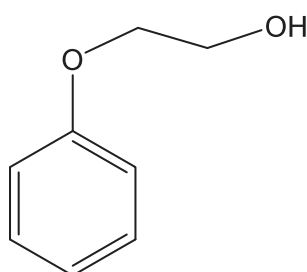
EINECS No. 204-589-7

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 is well suited to provide protection from contamination encountered in the personal care field. In addition, NEOLONE PH 100 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 product specifications.**

Assay, %:.....	99.5 Min
Phenol, ppm:	10 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 (Setaflash 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 offers the following benefits:

- Global approvals as a preservative for cosmetics
- Effective control against a broad range of bacteria
- Excellent 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.

NEOLONE PH 100 has been tested for efficacy against a variety of microorganisms. Claims of efficacy against specific organisms may not be approved in all regulatory jurisdictions. It is the responsibility of the user to confirm all applicable approvals are in place prior to product use.

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 mycoides	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.

Recommended Use Rates

NEOLONE™ PH 100 Preservative may be used up to 1% as supplied. Typical use rates range from 0.4% to 0.6% when used with other preservatives. Dosage levels should be verified with testing due to the microbial susceptibility of various formulations.

Toxicology and First Aid

For product safety information, refer to the Safety Data Sheet (SDS).

Handling, Storage and Disposal

Please refer to the Safety Data Sheet (SDS) and product label. 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.

NEOLONE PH 100 has a freezing point of 12°C (54°F) and will freeze stored below this temperature. This is a common occurrence and will not impact the quality of the material.

Based on the toxicology of NEOLONE PH 100, the principal exposure route of concern is the direct contact of the liquid with skin and eyes. When handling NEOLONE PH 100, personal protection equipment including a rubber apron, suitable impervious full-length gloves and footwear, and chemical splash goggles should be worn.

Prior to disposal, the residual contents of NEOLONE PH 100 containers should be drained into the product to be preserved. A small quantity of NEOLONE PH 100 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 with water spray, CO₂, foam, or dry chemical extinguisher.

Product Stewardship

When considering the use of any Dow product in a particular application, review the latest Safety Data Sheet (SDS) and country-specific product label to ensure the intended use is within the scope of approved uses. Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products – from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including Safety Data Sheets (SDS), should be consulted prior to use of Dow products. Current Safety Data Sheets are available from Dow.

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