

BULLETIN VC-868

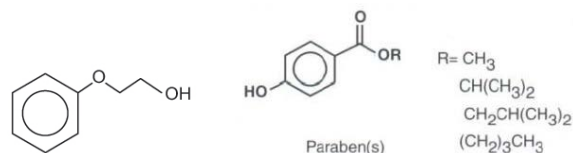
LiquaPar™ Optima preservative

Preservative for Cosmetics Industry

Product Description

LiquaPar Optima preservative is a broad spectrum, liquid preservative system that is designed to prevent microbiological contamination in a variety of personal care applications. This carefully selected blend of hydrophilic and lipophilic parabens in phenoxyethanol provides a balance of antibacterial and antifungal activity by maximizing the structure activity relationships of the components. LiquaPar Optima has a broad range of applications in aqueous, anhydrous, and emulsion-type skin care and hair care products.

Formula



Phenoxyethanol (and) Methylparaben (and) Isopropylparaben (and) Isobutylparaben (and) Butylparaben

Suggested Applications

LiquaPar Optima preservative has a broad range of applications. LiquaPar Optima preservative is soluble in commonly used solvents and can be easily incorporated into most formulations. In aqueous systems a co-solvent or surfactant may be needed to solubilize the preservative. LiquaPar Optima preservative could be used to preserve products such as:

- Creams, lotions, ointments, exfoliants;
- Lipsticks, liquid and cream make-up, eyeliners, pressed and loose powders, mascaras;
- Conditioners, shampoos, gels and other haircare products.

Dosage and Processing

LiquaPar Optima preservative is recommended for use in personal care products at levels between 0.5 – 1.0%. Higher levels of LiquaPar Optima preservative may be required in formulations with higher levels of non-ionics and proteins since these compounds are known to interfere with parabens. Therefore, it is important to remember that every newly developed or modified product must be challenge tested to ensure adequate preservation. The staff of Ashland Inc.'s microbiological laboratories will be pleased to give customers the appropriate support.

If the pH of the pre-emulsification water is above pH 8 before neutralization, the preservative must be added post-emulsification. In alkaline conditions ionization and/or hydrolysis can occur. For non-emulsified formulations LiquaPar Optima preservative can be incorporated directly into the product during manufacturing. The preservative can be added to cold systems or at elevated temperatures, at a pH range of 3-7.5.

Product Properties

Microbiological Profile

LiquaPar™ Oil preservative is a unique combination of four paraben esters, which has been shown to be effective against Gram-positive bacteria, yeast and mold.

Technical Data

Appearance:	Clear viscous yellow liquid
Odor :	Mild, characteristic
Solubility (g/100 ml):	Soluble in methanol (>100), Propylene Glycol (>100), 1,3 Butylene Glycol (>100), Glycerine (0.8), Maleated Soybean Oil (>100), Lanolin Oil (>100), Mineral oil (>100), water (<0.1).

Regulatory profile Parabens

Methyl

Approved in the EU up to 0.4% (as acid) for a single ester and 0.8 % (as acid) for mixtures of esters.

Isopropyl and Isobutyl

Prohibited in cosmetic products in the EU.

Butyl

Approved in the EU where the sum of individual concentrations of propyl and butyl parabens does not exceed 0.14% (as acid). Prohibited in leave-on cosmetic products for application to the nappy area of children below 3 years. For leave on products not intended to be applied to the nappy area of children less than 3 years, the following label warning should be used "Do not use on the nappy area".

For more details, please contact your sales/technical contact and ask for the regulatory update letter.

Stability

LiquaPar Optima preservative is a clear, pre-blended, liquid preservative system that can easily be added directly to your formulation during manufacturing pre-emulsification or post-emulsification at or below 85°C. Oxidizing agents, strong acids and alkalis may lead to the decomposition of the active ingredients. The paraben components may become partially deactivated by non-ionic surfactants and highly ethoxylated emulsifiers; as a result, these materials should be minimized or avoided.

Storage

Storage is recommended in tightly closed original-containers at temperatures between 5°C and 25°C.

INCI-Nomenclature

122-99-6	Phenoxyethanol
99-76-3	Methylparaben
4191-73-5	Isopropylparaben
4247-02-3	Isobutylparaben
94-26-8	Butylparaben

More details regarding handling, toxicity and labelling are available in the Safety Data Sheet (SDS).

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

All statements, information and data presented herein are believed to be accurate and reliable, but are not to be taken as a guarantee, an express warranty, or an implied warranty of merchantability or fitness for a particular purpose, or representation, express or implied, for which Ashland Inc. and its subsidiaries or affiliates assume legal responsibility. It is the customer's responsibility to ensure that its use of preservative products is in accordance with all applicable laws and regulations. In addition, customers are strongly advised to confirm that the preservative they are purchasing has all necessary regulatory approvals for the intended use and the country where the product is going to be used.