

## LiquaPar® Optima

**INCI: Phenoxyethanol (and) Methylparaben (and) Isopropylparaben (and) Isobutylparaben (and) Butylparaben**

### DESCRIPTION

LiquaPar Optima is a broad spectrum liquid preservative system that can be used in a wide variety of cosmetic formulations. It is stable, non-volatile, non-irritating, and non-sensitizing at recommended levels. It can be used effectively in aqueous, anhydrous and emulsion-type skin and hair care products. It is effective against Gram-negative and Gram-positive bacteria, yeasts, and molds. LiquaPar Optima has not been tested on animals.

### HANDLING AND STORAGE

LiquaPar Optima should be stored in its original airtight container in a cool, dry location out of sunlight. Please refer to the Material Safety Data Sheet (MSDS) and follow all safety precautions when handling this product.

### FORMULATING WITH LIQUAPAR OPTIMA

LiquaPar Optima can be added to cold systems or added at elevated temperatures up to 176°F (80°C). When formulating emulsions, it can be added pre-emulsification in the oil phase, or post-emulsification at or below 176°F (80°C). LiquaPar Optima is soluble in water at levels less than 0.1%, limited primarily by phenoxyethanol. In aqueous systems a co-solvent or surfactant may be needed to solubilize the preservative.

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.

Sodium salts of EDTA can be used with LiquaPar Optima and will work as an enhancer, improving the activity of LiquaPar Optima in formulations.

LiquaPar Optima is approved for use in both leave-on and rinse-off applications. It is ready-to-use in emulsions and solutions at **recommended use levels of 0.5% - 1.0%**. Higher levels of LiquaPar Optima may be required in formulations with higher levels of non-ionics and proteins since these compounds are known to interfere with parabens. It is important to challenge test new formulations to ensure adequate preservation.

### LIMITED WARRANTY – PLEASE READ CAREFULLY

The information contained herein is offered in good faith based on Lotioncrafter's research and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information shall not be used in substitution for customers' tests to insure that Lotioncrafter's products are fully satisfactory for your specific applications. Our warranty is that the product will meet its current sales specifications. Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.