



**RANGE
PRODUCTS**

OPTIPHEN PLUS

INTRODUCTION

Optiphen Plus is paraben- and formaldehyde-free. It is a liquid preservative formulation featuring an innovative blend of phenoxyethanol, sorbic acid and an emollient base that is ideal for personal care products. The combination of all three ingredients offers effective protection against bacteria, yeast and mould growth while imparting emolliency.

This preservative is effective as a stand-alone system and functions well with other preservatives. Optiphen Plus has an extensive range of applications in aqueous and emulsion-type personal care formulations and is compatible with most raw materials in the personal care industry.

BENEFITS

- Globally approved
- Highly effective broad spectrum antimicrobial
- Effective at pH levels below 6.0
- Non-formaldehyde donor
- Paraben-free
- Non-isothiazolinone
- Imparts emolliency
- Compatible with most raw materials
- Excellent safety and toxicological profile

CHEMISTRY

The ingredient phenoxyethanol, is an aromatic ether alcohol commonly used for preservation of personal care products. Sorbic acid is often used in lower pH personal care formulations and functions as a complementary preservative. Lastly, 1,2 octanediol - INCI name: caprylyl glycol - is the emollient base, giving the product exceptional feel.

TYPICAL PROPERTIES

Odour	Characteristic
Appearance	Liquid
Colour	Clear to pale straw
Specific Gravity	1.0140 - 1.0240

SOLUBILITY (g/100g solvent at 25°C)

Water	1.0
Ethanol	> 100 miscible
Isopropanol	> 100 miscible
Ethylene Glycol	> 100 miscible
Propylene Glycol	> 100 miscible
Butylene Glycol	> 100 miscible
Glycerine	> 100 miscible
Mineral Oil	0.6

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RECOMMENDED APPLICATION

Sunscreen Creams and Lotions
Daily Wear Sun Protection Products
Moisturisers
Hand and Body Creams and Lotions
Night Creams
Wipes
Foundations
Concealers
Blush
Styling Gels
Shampoo

FORMULATION GUIDE

Optiphen Plus can be easily added to the formulation during pre- or post-emulsification at or below 80°C.

RECOMMENDED USE LEVELS

0.75% - 1.5%

SAFETY PROFILE

Optiphen Plus has an excellent safety and toxicological profile and is safe to use in a wide range of personal care applications.

CAS Numbers:

Phenoxyethanol	122-99-6
Caprylyl Glycol	1117-86-8
Sorbic Acid	110-44-1