



ELPROTECT – PEO10™ (Phenoxy Ethanol)

Technical Datasheet

1. Technical Datasheet

Property	Specification
Physical Properties	
Appearance	Crystal-clear,colourless liquid
Physical Form	Liquid
Odor	Faint aromatic odor
Molecular Weight (g/mol)	138.16
Density or Specific Gravity	1.104 g/ Ml
Viscosity	20.5 centistokes at 25 °C
Refractive Index	1.534 at 20 °C/D
pH (if aqueous solution)	7 at 10 g/l at 23 °C
Chemical Properties	
Water Solubility	30 g/L (20 °C)
Incompatibilities	Nonionic surfactants
Hazardous Reactions	Oxidizes in air to form unstable peroxides
Thermal Properties	
Melting Point	57 °F
Boiling Point	473.4 °F at 760 mmHg
Flash Point	250 °F
Autoignition Temperature	500 °C

2. Processing Methods



Cosmetic moisturizing cream

When adding Phenoxyethanol in cream formulations, incorporate it during the cool-down phase below 40°C to maintain its preservative effectiveness. Ensure it's fully dissolved in the water or oil phase before emulsification if pre-blended. Mix thoroughly to achieve uniform distribution and stable preservation.

Key Ingredients	Indicative Dosage (% w/w)
Water (Aqua)	60%
Glycerin	5%
Cetearyl Alcohol	4%
Cetyl Alcohol	2%
Caprylic/Capric Triglyceride	10%
Phenoxyethanol	0.8%
Carbomer	0.5%
Triethanolamine	0.3%
Water	20%

Hair shampoo

When adding Phenoxyethanol in shampoo, include it during the cool-down phase to preserve its antimicrobial activity. Ensure even distribution by mixing thoroughly after all surfactants and additives are incorporated. Avoid adding at high temperatures to prevent degradation and reduced efficacy.

Key Ingredients	Indicative Dosage (% w/w)
Water (Aqua)	75.8%
Sodium Laureth Sulfate	12%
Cocamidopropyl Betaine	6%
Glycerin	3%
Phenoxyethanol	0.8%
Fragrance	0.4%
Preservative	0.5%



Cleanser

In cleanser formulation, add Phenoxyethanol during the cool-down phase to maintain its preservative efficacy. Ensure gentle, thorough mixing to evenly disperse it and avoid destabilizing the formulation.

Key Ingredients	Indicative Dosage (% w/w)
Glycerin	4%
Sodium Chloride	0.5%
Phenoxyethanol	0.8%
Disodium EDTA	0.1%
Water	80-90%

Liquid Foundation

In foundation formulation, add Phenoxyethanol during the cool-down phase to preserve its antimicrobial properties. Stir gently to ensure even distribution without affecting emulsion stability or pigment dispersion.

Key Ingredients	Indicative Dosage (% w/w)
Dimethicone	10%
Glycerin	5%
Titanium Dioxide	3%
Phenoxyethanol	0.8%
Triethanolamine	0.3%
Carbomer	0.5%
Water	70-80%

3. Dosing by Application

Products	Authorized dosage
Cosmetic moisturizing cream	Upto 1%
Hair shampoo/Conditioners	Upto 1%
Lip stick	Upto 1%

The information and data contained herein are believed to be accurate but may not be all inclusive and should only be used as a guide. The information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the product for his particular use and on condition that they assume the risk of the use thereof.

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