

# MICROCARE<sup>®</sup> PE

preservative formulated for all  
personal care applications

## General Description

**Microcare PE** is a broad spectrum preservative based on phenoxyethanol, one of the most widely used anti-microbial actives in personal care products.

## Chemical Identification

Active ingredient:	2-phenoxyethanol
INCI name:	Phenoxyethanol

## Typical Chemical and Physical Characteristics

Appearance:	Colourless clear liquid
Density (20°C):	1,105-1,110 g/ml
Miscibility:	Miscible with water, glycols and alcohols at max. recommended use level

Note: These figures do not constitute a specification

## Preservative Properties

Although it has broad spectrum anti-microbial activity, **Microcare PE** is particularly effective as a bactericide in the control of Gram-negative organisms. It is normally used in combination with other preservatives in blends to boost overall anti-microbial activity. It may be used in a wide variety of rinse off and leave on applications.



## Typical Minimum Inhibitory Concentrations (MIC) for 2-Phenoxyethanol

ORGANISM	MIC (PPM)
<b>Bacteria</b>	
<i>Pseudomonas aeruginosa</i>	3200
<i>Escherichia coli</i>	4000
<i>Staphylococcus aureus</i>	6400
<b>Fungi</b>	
<i>Aspergillus niger</i>	4000
<i>Candida albicans</i>	4000

MIC determinations carried out according to Thor standard test methods

### Recommended Use Levels

**Microcare PE** is typically used in concentrations ranging from 0,3-1,0%. This is well within the water miscibility of phenoxyethanol. However, since there is considerable variation in the composition of cosmetics and toiletries, Thor Technical Centres can assist formulators to determine the optimum level of addition to ensure protection of their products.

**Microcare PE** will tolerate hot processes such as emulsion preparation and is stable in the presence of acids and alkalis. Increasing the temperature can help to speed up dissolution of **Microcare PE** but prolonged heating should be avoided to prevent losses by evaporation. Because of its solvent properties, it can also be used to dissolve other ingredients with poor water solubility.

**Microcare PE** is also compatible with all surfactant types and most other preservative actives, making it an extremely versatile ingredient for personal care applications.

## Technical Support

Thor personal care laboratories are fully equipped to provide complete microbiological, analytical and *in vitro* toxicology support for all product applications.

### Application Areas

**Microcare PE** may be used in a wide range of products including:

- Shampoos
- Hair conditioners
- Styling gels
- Liquid soaps
- Bath gels
- Moisturising creams
- Body creams and milks
- Mascara
- Suntan lotions
- Eyeliners
- Lipsticks

### Regulatory Status

**Microcare PE** is permitted up to 1% in EU, USA and Japan.

### Toxicology

Phenoxyethanol is a well know personal care ingredient. It is safe as a cosmetic ingredient in the present practices of use and concentration.

### Further Information

For further information please contact your local Thor personal care representative.



#### THOR PERSONAL CARE SAS

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