

# MICRO CARE® PEHG

preservative formulated for all  
personal care applications

## General Description

**Microcare PEHG** is a liquid preservative based on the combination of phenoxyethanol and ethylhexylglycerin. It exhibits broad spectrum anti-microbial activity and can be used in a wide range of personal care applications.

## Chemical Identification

Active ingredients:	2-Phenoxyethanol 1,2-Propanediol, 3-(2-ethylhexyloxy)
INCI names:	Phenoxyethanol (and) Ethylhexylglycerin

## Typical Chemical and Physical Characteristics

Appearance:	Liquid
Miscibility:	Miscible in water, alcohols and glycols at max. recommended level

Note: These figures do not constitute a specification

## Multifunctional Properties

**Microcare PEHG** has been formulated to contain ethylglycerin which assists and extends the antimicrobial activity towards a range of gram-positive and gram-negative bacteria and confers excellent fungicidal activity for the additional control of moulds and yeasts. This is particularly important for products with pH values below neutral. It also potentiates the efficacy of the phenoxyethanol.



## Typical Minimum Inhibitory Concentrations (MIC) for Microcare PEHG

Microorganisms	MIC's in ppm
<b>Bacteria</b>	
<i>Pseudomonas aeruginosa</i>	3600
<i>Escherichia coli</i>	3950
<i>Staphylococcus aureus</i>	4100
<b>Yeast</b>	
<i>Candida albicans</i>	3600
<b>Mold</b>	
<i>Aspergillus brasiliensis (niger)</i>	1800

MIC determinations carried out according to Thor standard test methods

### Formulation guide

**Microcare PEHG** should be used typically in the range 0,6 - 1%. **Microcare PEHG** will tolerate hot processes such as emulsion preparation and is stable in the presence of acids and alkalis. It can be incorporated either before or after emulsification but at temperatures not exceeding 80°C as prolonged heating should be avoided to prevent loss by evaporation. **Microcare PEHG** can be used over a wide pH range and is compatible with most cosmetic ingredients. However, since there is considerable variation in the composition of cosmetics and toiletries which may alter the efficacy of preservatives, manufacturers should confirm the level required to ensure protection and prevent potential incompatibility.

### Application Areas

**Microcare PEHG** 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
- Lipstick

### Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

### Regulatory Status

The ingredients of **Microcare PEHG** are approved for use in Europe, USA and Japan.

The maximum permitted level of **Microcare PEHG** is 1,1% for all applications in Europe, USA and Japan.

### Toxicology

**Microcare PEHG** is considered to be non-toxic and safe for use in personal care applications in normal and reasonably foreseeable conditions of use at recommended levels.

A safety assessment is available upon request.

### Technical Support

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

### Further Information

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



**THOR ESPECIALIDADES, S.A.**

Pol. Ind. El Pla · Avda. de la Industria, 1  
08297 Castellgalí (Barcelona) · SPAIN

Tel: +34 93 833 28 00 · Email: [thor@thor-spain.com](mailto:thor@thor-spain.com)  
[www.thor.com](http://www.thor.com)