

Iscaguard PEG

| Paraben Free | Thiazolinone Free | Formaldehyde Free | Preservative Free | Natural |
|--------------|-------------------|-------------------|-------------------|---------|
| ✓ | ✓ | ✓ | | |

| INCI declaration |
|------------------------------------|
| Phenoxyethanol, triethylene glycol |

Phenoxyethanol is a mild, versatile preservative for personal care formulations. The addition of triethylene glycol increases its effectiveness by lowering surface tension in order to enhance its penetration through the cell membrane of microorganisms. Iscaguard PEG is a cost effective preservative, offering a broad, balanced spectrum of activity against bacteria, yeasts, and moulds.

| In Use Concentrations | ISCA recommendation | EU Cosmetic Regulation (max) |
|-----------------------|---------------------|------------------------------|
| Leave-on | 0.4 – 1.0 % | 1.11 % |
| Rinse-off | 0.4 – 1.0 % | 1.11 % |

In use concentrations vary according to the formulation type and the other ingredients present. The correct use dosage should be determined by microbial challenge testing of the finished formulation (ISCA UK offers discounted challenge testing to our customers).

Recommended Applications

| Shampoo, Shower gel (Rinse-off) | Creams, lotions (Leave-on) | O/W emulsions | W/O emulsions | Wet wipes | Eye care | Lip care | Oral care | Children under 3 |
|---------------------------------|----------------------------|---------------|---------------|-----------|----------|----------|-----------|------------------|
| ● | ● | ● | ● | ● | ● | ● | ● | ● |

Use scenarios derived from evaluation of Cosmetic Regulation guidelines and preservative performance for typical formulations.



Iscaguard PEG

| Formulation guidelines | |
|-----------------------------|--|
| pH (effective range) | 3.0 – 9.0 |
| Solubility (Water) | 2.6 % |
| Solubility (Glycols) | Fully soluble |
| Maximum Process Temperature | 80 °C |
| General information | Iscaguard PEG is compatible with most personal care ingredients. In aqueous formulations, heating to 40°C may be required in order to fully dissolve the preservative. |

| Minimum Inhibitory Concentrations | |
|-----------------------------------|---------|
| Microorganism | MIC (%) |
| Bacteria (gram-negative) | |
| Pseudomonas aeruginosa | 0.30 |
| Escherichia coli | 0.30 |
| Proteus vulgaris | 0.29 |
| Bacteria (gram-positive) | |
| Staphylococcus aureus | 0.30 |
| MRSA | 0.40 |
| Bacillus cereus | 0.26 |
| Enterococcus faecium | 0.42 |

| Minimum Inhibitory Concentrations | |
|-----------------------------------|---------|
| Microorganism | MIC (%) |
| Yeasts | |
| Candida albicans | 0.125 |
| Candida famata | 0.125 |
| Saccharomyces cerevisiae | 0.44 |
| Moulds | |
| Aspergillus brasiliensis | 0.25 |

Disclaimer: The information contained in this document is intended to be of assistance to users. We believe the information set forth above to be true and accurate, but such information is provided without any warranty, and shall establish no legal duty or responsibility on the part of Isca UK Ltd.

