

Iscaguard PEG

Paraben Free	Thiazolinone Free	Formaldehyde Free	Preservative Free	Natural
✓	✓	✓	✗	✗

INCI declaration
Phenoxyethanol, triethylene glycol

Phenoxyethanol is a versatile, widely used preservative for personal care formulations. The addition of triethylene glycol increases its effectiveness by lowering its surface tension in order to enhance its activity at the cell membranes of microorganisms. Iscaguard PEG has a broad, balanced spectrum of activity against bacteria, yeasts, mould and fungi.

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 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.

Formulation guidelines	
pH (effective range)	3 – 9
Solubility (Water)	2.6 %
Solubility (Glycols)	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	0.22
Escherichia coli	0.44
Proteus vulgaris	0.29
Bacteria (gram-positive)	
Staphylococcus aureus	0.47
Bacillus cerus	0.26
Enterococcus faecium	0.42

Minimum Inhibitory Concentrations	
Microorganism	MIC (%)
Yeasts	
Candida albicans	0.32
Saccharomyces cerevisiae	0.44
Moulds	
Aspergillus niger	0.23

Physical Properties (approximate)	
Appearance	Clear colourless liquid
Colour	< 10 APHA
Odour	Odourless
Density	1.11 gcm ⁻³


Physical Properties (approximate)	
Flash point	> 110°C
Solubility in water	2.6 %
Solubility in glycols	Soluble

Safety information

Cosmetic Regulation labelling requirements

No special labelling requirements.

Transport information	
	not regulated
UN number	-
UN proper shipping name	-
Transport hazard class	-
Packing group	-
Environmental hazards	-

Hazard classification/labelling	
Hazard pictograms	
Signal word	Warning
Hazard statements	H302 Harmful if swallowed. H319 Causes serious eye irritation.