

Iscaguard PFA

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

INCI declaration
Phenethyl alcohol, caprylyl glycol

Iscaguard PFA is a multifunctional additive that can be used to formulate “preservative free” products. Caprylyl glycol is a humectant and skin conditioning agent, providing excellent moisturisation, emollience and wetting properties, while phenethyl alcohol imparts a pleasant floral fragrance to formulations. Both of these components have intrinsic anti-microbial properties, which allows the formulation of self-preserving products with low irritation and sensitisation potential.

In Use Concentrations	ISCA recommendation	EU Cosmetic Regulation (max)
Leave-on	0.5 – 1.5 %	Not regulated (Annex V)
Rinse-off	0.5 – 1.5 %	Not regulated (Annex V)

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)	4 – 9
Solubility (Water)	0.6 %
Solubility (Glycols)	Soluble
Maximum Process Temperature	80 °C
General information	Iscaguard PFA is particularly suitable for emulsions, oil and surfactant based formulations. It is advisable to pre-dissolve the product in a non-aqueous component prior to the addition of water (Iscaguard PFA shows good solubility in alcohols, glycols and mineral oils). Iscaguard PFA can be incorporated into a formulation at temperatures up to 80°C, though prolonged heating is not recommended.

Minimum Inhibitory Concentrations	
Microorganism	MIC (%)
Bacteria (gram-negative)	
Pseudomonas aeruginosa	0.10
Escherichia coli	0.10
Bacteria (gram-positive)	
Staphylococcus aureus	0.175
Bacillus cerus	0.20
Enterococcus faecium	0.20

Physical Properties (approximate)	
Appearance	Pale yellow liquid
Odour	Mild rose-like odour
Density	0.98 gcm ⁻³
pH (0.5% in water)	4.6

Minimum Inhibitory Concentrations	
Microorganism	MIC (%)
Yeasts	
Candida albicans	0.175
Saccharomyces cerevisiae	0.10
Moulds	
Aspergillus niger	0.175


Physical Properties (approximate)	
Colour of solution	< 50 Hazen
Solubility in water	0.6 %
Solubility in ethanol	> 50%
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	H319 Causes serious eye irritation.