

Iscaguard® PFA

Iscaguard® PFA is a “preservative free additive” with a synergistic combination of multifunctional cosmetic raw materials with broad-spectrum antimicrobial protection. Iscaguard® PFA may be classed as a “preservative free system”. This system represent an alternative to traditional cosmetic preservatives allowing self-preserving formulations thereby reducing irritant and sensitizing potentials.

Iscaguard® PFA is stable and active over a pH range of 4 to 8. Typical use levels for Iscaguard® PFA range from 0.5% to 1.5%. It is synergistic in combination with chelating agents.

Regulatory Status

Iscaguard® PFA is permitted worldwide for use in both leave-on and rinse-off personal care products.

EU – allowed without restriction in all products
(not listed on Annex VI)

USA – allowed without restriction in all products

Japan – allowed without restrictions in all products

Phenethyl alcohol is judged safe for use in cosmetics to 1.0%. Based on the CIR review for phenethyl alcohol and the good toxicity assessment for caprylyl glycol Iscaguard® PFA should be safe in cosmetics up to 1.8%

INCI name: phenethyl alcohol, caprylyl glycol

Using Iscaguard® PFA

Iscaguard® PFA is particularly suitable for emulsions, oil and surfactant based formulations and may be used in aqueous formulations upto its solubility limit i.e. 0.6%. Iscaguard® PFA can be added to formulation at temperatures up to 80°C, prolonged heating at elevated temperatures is not recommended.

Physical/Chemical Characteristics

Caprylyl glycol	35 – 45%
Phenethyl alcohol	55 – 65%
Appearance	Clear colorless liquid
Odor	Mild rose-like odor
Density	0.98 g/ml
pH (0.5% in water)	4.6

Table 35

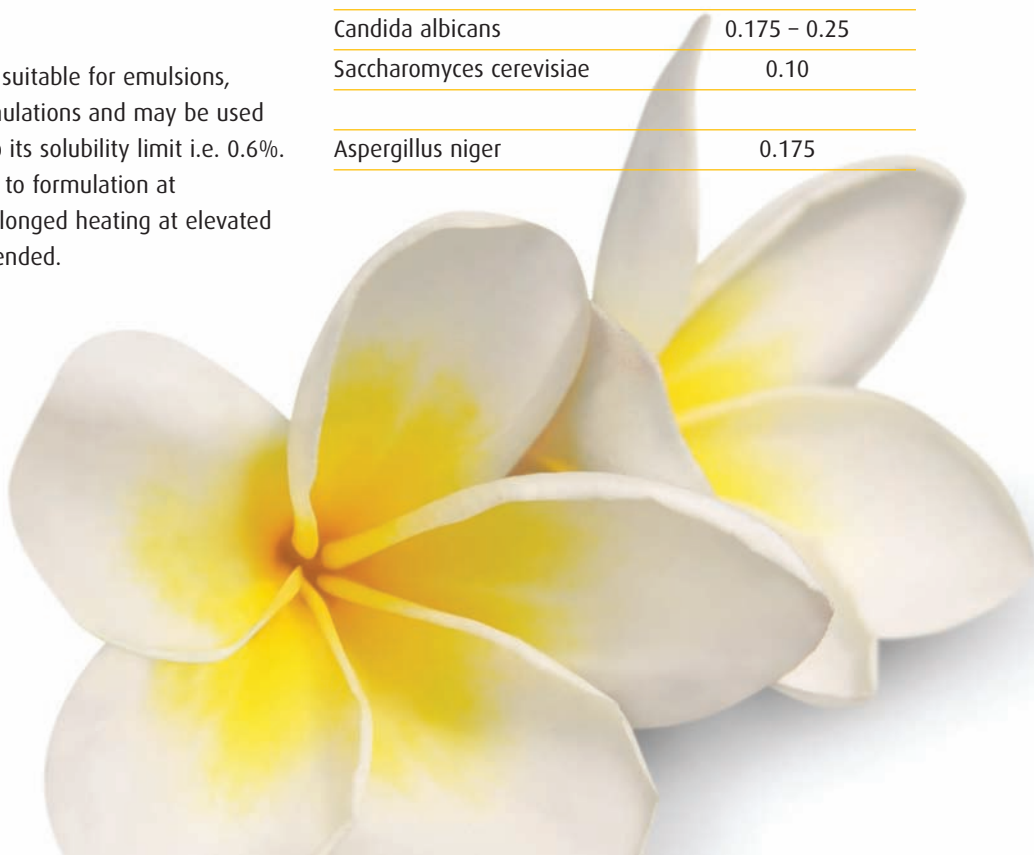
Solubility of Iscaguard® PFA (% w/w @ 25°C)

Water	0.6%
Ethanol	>50%
Propylene glycol	>50%
Butylene glycol	>50%

Table 36

Antimicrobial activity of Iscaguard® PFA

Microorganism	Minimum inhibitory concentration(%)
<i>Pseudomonas aeruginosa</i>	0.10 - 0.30
<i>Escherichia coli</i>	0.10 – 0.20
<i>Proteus vulgaris</i>	
<i>Staphylococcus aureus</i>	0.175 – 0.2
<i>Bacillus subtilis</i>	0.20
<i>Enterococcus hirae</i>	0.20
<i>Candida albicans</i>	0.175 – 0.25
<i>Saccharomyces cerevisiae</i>	0.10
<i>Aspergillus niger</i>	0.175



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Technical Service

ISCA support their product range with a telephone advisory service and in-house microbiological testing facilities. Please contact any member of our team for further details.

Disclaimer

Whilst the information contained herein is accurate to the best of our knowledge, no warranty is either expressed or implied. It is the responsibility of the individual to ensure that their products will remain preserved over the anticipated shelf life.



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