

# Iscaguard DCG

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

INCI declaration
Decylene glycol

Iscaguard DCG is a multifunctional additive that can be used to formulate “preservative free” products. Decylene glycol is a humectant and skin conditioning agent, providing excellent moisturisation, emollience and wetting properties to formulations. In addition, Iscaguard DCG can be used as a foam and viscosity booster for shampoo, shower gel and hand soap formulations. Iscaguard DCG has intrinsic anti-microbial properties, which reduces the reliance on traditional preservatives to create products with low irritation and sensitisation potential.

In Use Concentrations	ISCA recommendation	EU Cosmetic Regulation (max)
Leave-on	0.5 – 2.0 %	Not regulated (Annex V)
Rinse-off	0.5 – 2.0 %	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)	3 – 12
Solubility (Water)	Insoluble
Solubility (Glycols)	Soluble
Maximum Process Temperature	90 °C
General information	Iscaguard DCG is compatible with most commonly used personal care ingredients. It 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 DCG shows good solubility in alcohols, glycols and mineral oils). Iscaguard DCG can be incorporated into a formulation at temperatures up to 90°C, though prolonged heating is not recommended.

Minimum Inhibitory Concentrations	
Microorganism	MIC (%)
<b>Bacteria (gram-negative)</b>	
Pseudomonas aeruginosa	-
Escherichia coli	-
<b>Bacteria (gram-positive)</b>	
Staphylococcus aureus	-

Minimum Inhibitory Concentrations	
Microorganism	MIC (%)
<b>Yeasts</b>	
Candida albicans	-
<b>Moulds</b>	
Aspergillus niger	-


Physical Properties (approximate)	
Appearance	Waxy solid
Odour	Mild fatty odour
Density	0.97 gcm <sup>-3</sup>
Melting point	47 °C

Physical Properties (approximate)	
Solubility in water	Insoluble
Colour	Pale white to white
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	Danger
Hazard statements	H318 Causes serious eye damage.



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The information contained herein is, to the best of our knowledge, true and accurate. Any recommendations or suggestions are made without warranty or guarantee as the conditions of use are beyond our control. We strongly recommend that all products containing Iscaguard are rigorously tested to ensure suitability for end-use.

