

# Iscaguard PBD

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

| INCI declaration                                 |
|--|
| Phenoxyethanol, benzoic acid, dehydroacetic acid |

Iscaguard PBD is a blend of organic acids dissolved in phenoxyethanol. It is suitable for formulations with acidic pH levels, and offers excellent protection against bacteria, yeasts, moulds and fungi, as well as providing effective headspace protection.

| In Use Concentrations | ISCA recommendation | EU Cosmetic Regulation (max) |
|-----------------------|---------------------|------------------------------|
| Leave-on              | 0.5 – 1.0 %         | 1.17 % #                     |
| Rinse-off             | 0.5 – 1.0 %         | 1.17 % #                     |

# Not to be used in aerosol dispensers (sprays).

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)        | 3.0 – 6.5  |
| Solubility (Water)          | 1.0 % (approx.)  |
| Solubility (Glycols)        | Soluble  |
| Maximum Process Temperature | 60 °C  |
| General information         | <p>Iscaguard PBD is compatible with most personal care ingredients. In aqueous formulations, heating to 40°C may be required in order to fully dissolve the preservative. However, prolonged exposure to high temperatures should be avoided in order to protect against discolouration.</p> <p>Iscaguard PBD works effectively at pH values below 6.5, though for optimum efficacy we recommend that the pH of the finished product is less than 6.</p> |

| Minimum Inhibitory Concentrations |         |
|-----------------------------------|---------|
| Microorganism                     | MIC (%) |
| <b>Bacteria (gram-negative)</b>   |         |
| Pseudomonas aeruginosa            | 0.6     |
| Escherichia coli                  | 0.6     |
| <b>Bacteria (gram-positive)</b>   |         |
| Staphylococcus aureus             | 0.8     |

| Minimum Inhibitory Concentrations |         |
|-----------------------------------|---------|
| Microorganism                     | MIC (%) |
| <b>Yeasts</b>                     |         |
| Candida albicans                  | 0.7     |
| Saccharomyces cerevisiae          | 0.8     |
| <b>Moulds</b>                     |         |
| Aspergillus niger                 | 0.7     |


| Physical Properties (approximate) |                         |
|-----------------------------------|-------------------------|
| Appearance                        | Pale yellow liquid      |
| Odour                             | Faint, aromatic         |
| Density                           | 1.128 gcm <sup>-3</sup> |

| Physical Properties (approximate) |          |
|-----------------------------------|----------|
| Flash point                       | > 100 °C |
| Solubility in water               | 1.0 %    |
| 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.<br>H372 Causes damage to lungs through prolonged or repeated exposure.<br>H315 Causes skin irritation.<br>H302 Harmful if swallowed. |



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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.

