

MICRO CARE[®] MBG

preservative formulated for all
personal care applications

General Description

Microcare MBG is an aqueous based cationic preservative which provides broad spectrum control of bacteria, yeasts and moulds in a range of personal care products.

Chemical Identification

| | |
|---------------------|--|
| Active ingredients: | Poly(1-hexamethylenebiguanide hydrochloride) |
| INCI name: | Aqua (and) Polyaminopropyl Biguanide |

Typical Chemical and Physical Characteristics

| | |
|-------------|--|
| Appearance: | Clear-light to turbid light yellow liquid |
| Solubility: | Fully soluble in water, alcohols and glycols. Insoluble in oils and hydrocarbons |

Note: These figures do not constitute a specification



Minimum Inhibitory Concentrations (MIC) for Microcare MBG

| Microorganisms | MIC's in ppm |
|---|--------------|
| Bacteria | |
| <i>Pseudomonas aeruginosa</i> | 120 |
| <i>Escherichia coli</i> | 15 |
| <i>Staphylococcus aureus</i> | 40 |
| Yeast | |
| <i>Candida albicans</i> | 100 |
| Mold | |
| <i>Aspergillus brasiliensis (niger)</i> | 85 |

MIC determinations carried out according to Thor standard test methods

Microcare MBG is a rapid acting preservative for control of bacteria and fungi in both rinse off and leave on applications. It should not be assumed that because of its cationic nature it is always incompatible with products containing anionic surfactants. Compatibility should be individually assessed.

It is particularly effective against *Pseudomonas* sp. and is low foaming. It can be used to good effect with other cationic, amphoteric and non-ionic components.

Recommended Use Levels

Effective levels of **Microcare MBG** in cosmetic formulations are in the range 0,5 – 1,5%. However, since there is considerable variation in the composition of cosmetics and toiletries which may affect the efficacy of preservatives, manufacturers should confirm the level required to ensure protection and prevent potential incompatibility.

Microcare MBG is stable over a wide pH range and is not affected by the temperatures normally encountered in cosmetic manufacture. It should be added to the formulation at the earliest point in its manufacture to ensure complete protection of the product and its components.

Application Areas

Microcare MBG may be used in those products which do not contain anionic surfactants, for example:

- Moisturisers
- Conditioners
- Emollients

For other applications a compatibility check should be carried out prior to any efficacy testing

Regulatory Aspects

Microcare MBG is approved for use in the USA without limit. In Japan, it is approved up to 0,5%. In Europe, it is allowed up to 0.5% (except in sprays).

Toxicology

Please refer to toxicological dossier.

Technical Support

Thor personal care laboratories are fully equipped to provide complete microbiological, analytical and *in vitro* toxicology support for all product applications.

Further Information

For further information please contact your local Thor personal care representative.



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