

MICROCARE[®] DB

preservative formulated for all
personal care applications

General Description

Microcare DB is a blend of an organic acid with benzyl alcohol which can be used for the gentle preservation of all personal care products. It is equally effective against a broad range of bacteria, moulds and yeasts and is particularly useful for Ecocert applications.

Chemical Identification

Active	Benzyl alcohol
ingredients:	Dehydroacetic acid
INCI name:	Benzyl Alcohol (and) Dehydroacetic Acid (and) Aqua

Typical Chemical and Physical Characteristics

Appearance:	Liquid
Miscibility:	Miscible in water, glycols and alcohols at max recommended level

Note: These figures do not constitute a specification

Preservative Properties

The preservative activity of **Microcare DB** is maximised at pHs below 6,0 where the organic acids exert their preserving activity in the undissociated state. Dehydroacetic acid acts in a complementary manner by suppressing the growth and spore germination of yeasts and moulds whilst benzyl alcohol acts as a broad spectrum bactericide.



Recommended Use Levels

Microcare DB is recommended for inclusion in both leave on and rinse off applications in the range 0,2 to 1,0%. It can be incorporated at either room temperature, or high temperature up to 80°C. It is most effective when incorporated during the cooling down phase of the manufacturing process to prevent vaporisation of benzyl alcohol. The addition of antioxidants (BHT or tocopherol) can reduce the yellowing effect that can be seen with the addition of dehydroacetic acid in certain conditions (UV exposure, high temperature...). Anionics (carbomers and certain surfactants) and long exposure to high temperature may also cause discolouration. A pH greater than 6,0 during the manufacturing process does not cause any degradation of the actives, but for adequate protection the pH of the final product must be adjusted to 6 or less.

Because of the large variation in the composition of cosmetic products it is important that the preserving effectiveness is evaluated in the final formulation using appropriate microbial challenge tests.

Application Areas

Microcare DB may be used in a wide range of personal care applications including:

- Shampoos
- Hair conditioners
- Styling gels
- Liquid soaps
- Bath gels
- Moisturising creams
- Body creams and milks
- Suntan lotions
- Decorative cosmetics

Regulatory Status

Microcare DB is allowed in Europe up to 1,1% (except in spray), in the USA up to 8,7% and in Japan up to 6,2%.

Toxicology

Please refer to toxicological dossier.

Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

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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