PRODUCT INFORMATION

The VERSTATIL range - Verstatil TBO

Economy meets efficacy.

Safety first for tight budgets!

VERSTATIL products feature:

- ••• economic & reliable preservation
- •••• NO formaldehyde-releasers
- *** NO halogenorganic compounds
- globally approved raw materials

and now also:

....... NO phenoxyethanol



Preservation of cosmetic products is of critical importance for consumer safety. Consequently, a large number of substances only dedicated to fight microorganisms is available to protect a cosmetic product from microbiological deterioration. These preservatives are complemented by multifunctional additives with antimicrobial properties

Choosing the right preserving system out of this diversity is a challenging task for the developer of a cosmetic product. Competing interests of marketing departments searching for new claims, regulatory departments looking for globally approved raw materials, procurement departments considering the economic interest of the company and the formulator's own interest in easiness

of formulation are influencing the search for the best preservation system.

From the vast number of antimicrobials, Dr. Straetmans with its long year experience in the field of cosmetic preservation has screened systems of proven antimicrobial efficacy and world-wide approval.

Our guiding idea in looking for the right systems was: **Safety first!**

Regulatory	Marketing
- toxicologically safe	- safe claims
- legally safe	- save time to market
Verst	atil
- safe preservation	- save money
- safe formulation	- safe supply
R&D	Procurement

We have looked into well-established blends and identified possibilities to reduce the number or quantity of preservatives in these formulations. We have combined well established preservatives with modern multifunctional additives to exploit synergies. We have identified weak-points of preserving systems and substituted them by better acting raw materials.

The result is a range of meaningful blends designed to serve your and your customer's safety.

Verstatil protects the broad variety of possible cosmetic formulations against microbiological deterioration.

Verstatil consists of globally approved raw materials

Verstatil offers reliable preservation for low costs

Verstatil promises: no parabens, no formaldehyde, no chemically acting preservatives with sensitizing potential

Verstatil offers now the possibility to develop without phenoxyethanol

Verstatil means low impact on the stability and appearance of a cosmetic formulation



INCI: Triethyl Citrate, Caprylyl Glycol, Benzoic Acid

Verstatil TBO the **new** easy-to-use preservative blend, introducing triethyl citrate as an innovative solvent system for preservation blends in cosmetics. In combination with a multifunctional wetting agent and the well-known preservative benzoic acid, **Verstatil TBO** provides a versatile and safe preserving systems for a broad range of cosmetic concepts..

Verstatil TBO does not contain any fragrance components and therefore suits for perfume free, sensitive product concepts. The liquid colourless blend itself has no noticeable odour and can be therefore applied to achieve this marketing requirement. It can be used as a cost effective preservative for emulsions, gels and tonics in conventional cosmetics concepts.

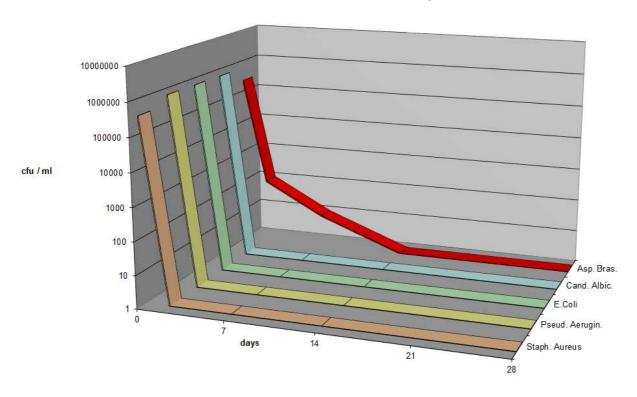
Verstatil TBO allows to work without phenoxyethanol, without compromising the biological stability of the products. At a use level between 1.0 - 1.5% **Verstatil TBO** shows excellent efficacy over a broad pH range and is an economic alternative to standard preservatives systems.

The effective performance of **Verstatil TBO** is given at pH between 4-7. It can be used as single raw material for preservation or it can be combined with organic acids if desired.

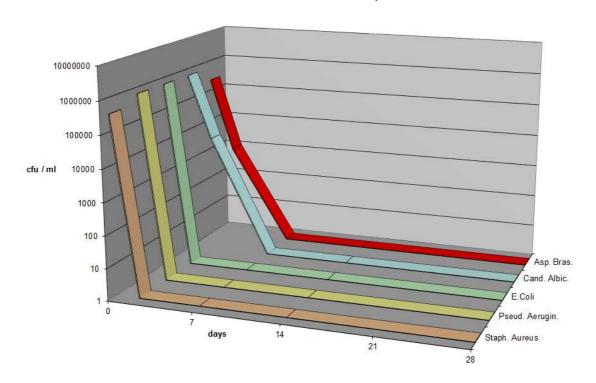
Characteristics of Verstatil TBO		
Appearance	Clear, colorless liquid	
INCI	Triethyl Citrate, Caprylyl Glycol, Benzoic Acid	
Recommended use level Max. permitted use level according to 1223/2009/EC	1,0 – 1,5% ~ 3,3 %	
pH-range	4,0 – 7,0	
Efficacy spectrum	Gram+ Gram- Yeast Mould	
very goodsufficientinsufficient	• • •	
Efficacy in formulation very good combinations with other	emulsions tonics gels surfactant	
preserving systems may be required insufficient		
Regulatory status	CTFA, EU, CLS, AICS, DSL	



Tonic Formulation with 1% Verstatil TBO at pH 5,26

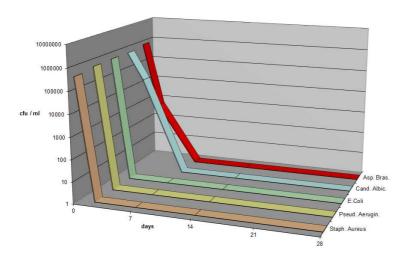


W/O Emulsion with 1% Verstatil TBO at pH 5,3

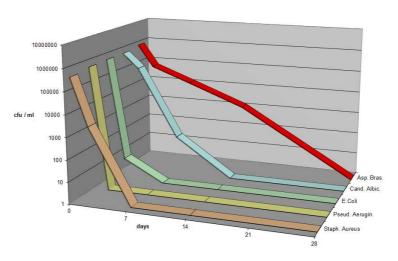




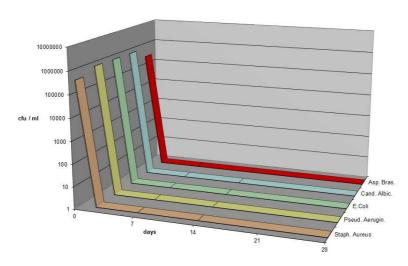
O/W Formulation with 1% Verstatil TBO at pH 5,5



O/W Formulation with 1% Verstatil TBO at pH 7



Hydrogel with 1% Verstatil TBO at pH 6





Formulations with our products are available for both, traditional and natural cosmetics concepts. Please refer to the Dr. Straetmans homepage for formulation inspirations.

Toxicology

Verstatil TBO is not irritating, not sensitizing and does not contain genetically modified material, dioxine, phthalates, BSE-related material or CMR-material.

Packing units

Verstatil TBO is available in 25 kg cans, 200 kg barrels and 1000 kg IBC.

Environmental Information

Verstatil TBO is produced in an environmentally and toxicologically unobjectionable process by mixture of the active materials.

Handling and storage

In closed original containers **Verstatil TBO** can be stored for at least 1 year. **Verstatil TBO** does not need to be preserved.

For further information contact our Dr. Straetmans sales team: sales@dr-straetmans.de or your local representative.



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