PRODUCT INFORMATION

The VERSTATIL range - Verstatil TBG

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 claims	
safe	- save time to	
- legally safe	market	
Verstatil		
- 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, Glyceryl Caprylate, Benzoic Acid

Verstatil TBG 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 TBG** provides a versatile and safe preserving systems for a broad range of cosmetic concepts.

All components of **Verstatil TBG** are approved for natural cosmetic by Ecocert, Cosmos and Natrue. Therefore this blend can be used as a cost effective preservative system for emulsions, gels and tonic for certified natural cosmetics.

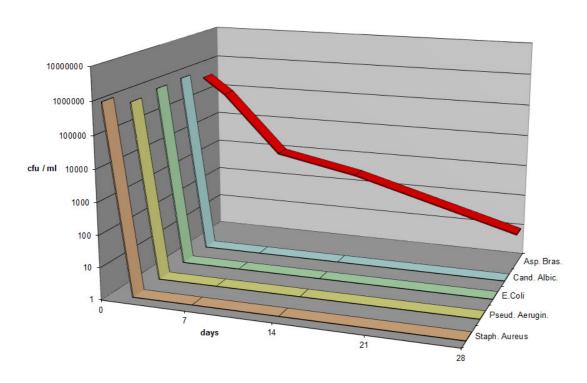
At a use level between 1.0 - 2.0% **Verstatil TBG** shows a convincing efficacy against all relevant germs. It is an easy to use blend and can be added to the formulation at any step of the process.

The effective performance of **Verstatil TBG** is given at pH between 4-6. It can be used as single raw material for preservation or it can be combined with organic acids if desired.

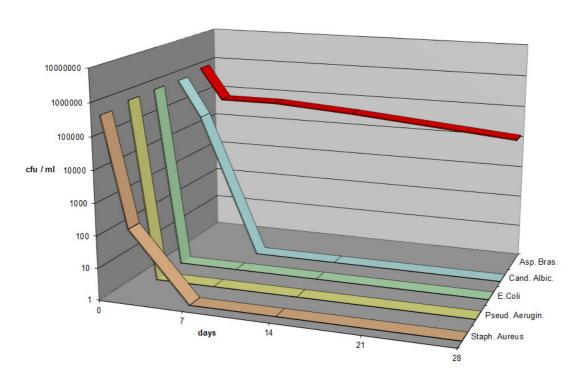
Characteristics of Verstatil TBG		
Appearance	Clear, colorless liquid	
INCI	Triethyl Citrate, Glyceryl Caprylate, Benzoic Acid	
Recommended use level	1,0 – 1,5%	
Max. permitted use level according to 1223/2009/EC	~ 4,0%	
pH-range	4,0 - 6,0	
Efficacy spectrum	Gram+ Gram- Yeast Mould	
very good		
sufficient		
insufficient		
Efficacy spectrum	emulsions tonics gels surfactant	
very good		
combinations with other preserving systems may be required	• • •	
insufficient		
Regulatory status	CTFA, EU, CLS, AICS, DSL	
Natural Cosmetic Standards	Ecocert, Cosmos, Natrue	



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

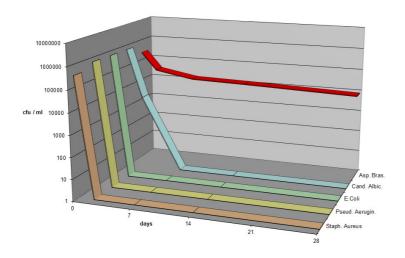


OW-Emulsion with 1% Verstatil TBG at pH 6,5

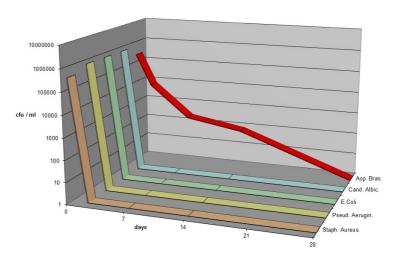




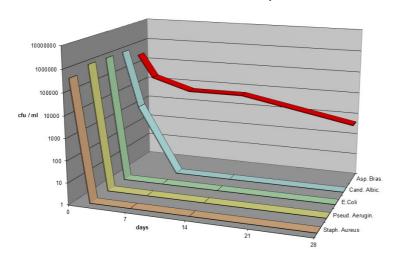
W/O-Emulsion with 1% Verstatil TBG at pH 5,3



Hydrogel with 1% Verstatil TBG at pH 6



Tonic with 1% Verstatil TBG at pH 5,3





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

Packing units

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

Environmental Information

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

Handling and storage

In closed original containers, **Verstatil TBG** can be stored for at least 36 months. **Verstatil TBG** 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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