Product Information

Verstatil® SL

The Product: Verstatil® SL

Verstatil® SL combines the efficacy of a well-established fungicidal preservative with the mild, skin conditioning performance of a multifunctional organic acid. This blend is liquid and therefore easy to handle. Its broad antimicrobial activity will show good results especially in surfactant based and aqueous products.

CHARACTERISTICS

- INCI: Aqua; Sodium Levulinate; Potassium Sorbate
- Appearance: colorless to brownish liquid
- Preservative blend with broadband antimicrobial activity
- No phenoxyethanol/isothiazolinone/parabens/formaldehyde-releasers/halogenorganic compounds
- Sodium Levulinate based on vegetable source (corn)
- Ideal for rinse-off and water-based products, suitable for emulsions
- Low impact on the stability and appearance of the formulation
- Reliable and cost-effective
- Globally approved
- Easy to use:
 - Liquid material
 - o Fully water soluble
 - o Hot and cold processable
- pH range: 4.0 6.0

DOSAGE

Product Concept	Dosage
Surfactant based products	1.5 - 2.0 %
Aqueous based products	1.5 - 2.0 %
Emulsions	1.5 - 2.0 %*

Max. dosage 6 % according to European Cosmetics Legislation. Please consider your national legislative restrictions.

ANTIMICROBIAL EFFICACY

Gram +	Gram -	Yeast	Mould
++	++	+	+

Legend: + = good, but needs a co-active | ++ = very good alone



^{*} combination with boosting co-active recommended.



How to work with Verstatil® SL

MANUFACTURING PROCEDURE (LABORATORY SCALE)

In emulsions, surfactant based formulations and aqueous based products

- pH-dependent efficacy
- Can be added at any point during the manufacturing process
- Hot and cold processable

Very convenient processing

FORMULATION ADVICE

Improve performance in emulsions	Combination with antimicrobial surface active substance (e.g. dermosoft® Octiol) recommended
Working at pH > 5.5	Increase dosage and combine with surface active booster
Consider electrolyte input	Check if emulsifier system is electrolyte stable

APPLICATION IDEAS

Perfectly suitable especially for surfactant and water based products, and emulsions.

For more formulation ideas visit us at:

https://www.dr-straetmans.de/en/products



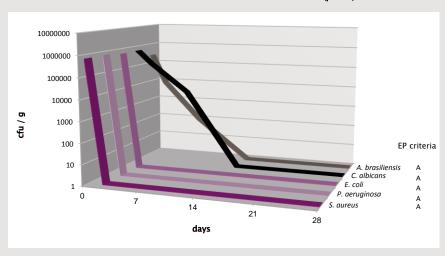


Proof of Performance

MICROBIOLOGICAL CHALLENGE TESTS

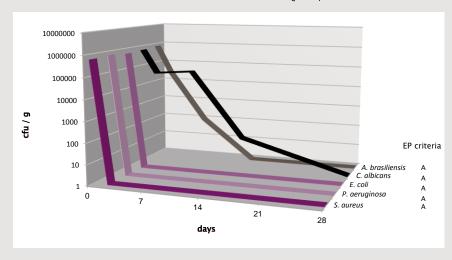
Performance in surfactant based products

Basic surfactant based formulation with 1.5 % Verstatil® SL (pH 5.3)



Performance in aqueous based products

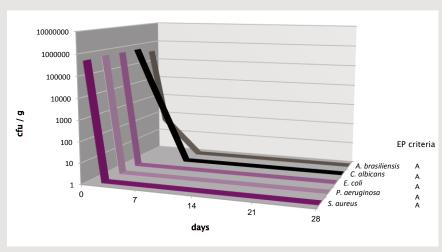
Sensitive Tonic with 2.0 % Verstatil® SL (pH 5.3)





Performance in O/W-emulsions in combination with a boosting co-active

Basic emulsion with 1.5 % Verstatil® SL and 0.5% dermosoft® Octiol (pH 5.3)



Trade Information

International Approval*	EU, USA, Canada, China, Japan, Korea.
Packaging	25 / 200 / 1000 kg
Shelf life (stored in original container)	24 months

^{*} Information is based on our best knowledge and reviewed for the most requested regions only. We recommend to check current regulatory requirements in individual target countries. For more information contact our regulatory department or refer to our regulatory status statement.

For further information, please contact: sales-drs@evonik.com

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Evonik Dr. Straetmans GmbH

Merkurring 90

22143 Hamburg, Germany Phone +49 40 669356 0 Fax +49 40 669356 310

info-drs@evonik.com www.dr-straetmans.de/en

