

Product Information

dermosoft® Hexiol**The Product: dermosoft® Hexiol**

A multifunctional additive with solvating and wetting properties as well as a good antimicrobial activity. The liquid material is very easy to handle and to process due to its good water solubility. Depending on the formulation and the required pH, **dermosoft® Hexiol** can be used in combination with organic acids or alone. It also boosts the efficacy of preservatives in a variety of cosmetic formulations. It is the ideal choice for aqueous systems, higher pH levels and an alternative wetting agent with low impact on stability and viscosity of emulsions.

CHARACTERISTICS

- INCI: 1,2-Hexanediol
- Appearance: Almost colorless, clear liquid
- Solvent function
- Wetting agent properties – cosmetic functions due to its amphiphilic properties:
 - Wetting, hydrating
 - Solvent
 - Co-solubilizing
 - Enhances dispersibility of pigments
 - Antimicrobial efficacy
- Good antimicrobial protection
- Boosts organic acids even when working at higher pH
- Low impact on emulsion stability and viscosity
- Liquid and clear water soluble
- Water solubility at 20°C: 1000 g/l
- Suitable for all product concepts
- Low odor
- pH independent
- Ideal option for higher pH
- Can be used alone

DOSAGE

Product Concept	Dosage
Used as a booster for organic acids	2.0%
Used alone in emulsions O/W, W/O, Tonics	3.0%
For surfactant based products	1.0 – 3.0%

ANTIMICROBIAL EFFICACY

Gram +	Gram –	Yeast	Mould
+	++	++	+

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

How to work with dermosoft® Hexiol

MANUFACTURING PROCEDURE (LABORATORY SCALE)

O/W-emulsions, recommended procedure:

1. Add **dermosoft® Hexiol** to the water or oil phase, preferably before emulsification.
2. Proceed as usual. **dermosoft® Hexiol** is pH stable and can be heated up to 80°C. Recommended procedure described. Addition at any step of the production process also possible.

Hot or cold
process possible.

Surfactant based products:

1. Add to the water phase and proceed as usual.

Ideal for
transparent
products.

Aqueous or hydroalcoholic products (e.g. wet wipe lotions):

1. Add to the water phase. The material is fully water soluble.

In some cases, **dermosoft® Hexiol** can have an impact on emulsion stability. In surfactant based products, it may interfere with the thickening system. Check stability issues carefully.

FORMULATION ADVICE

Improve fungicidal performance	Combine with e.g. organic acids like dermosoft® 688
Application in surfactant based products	Viscosity/stability depending on surfactant base, pH and thickener system
	Careful testing required for dosage > 2%
Reduction of performance might occur with	Polymer structures in water phase
	Hydrocolloids
	Pigments (due absorption on surfaces)
	PEG-derivatives

APPLICATION IDEAS

Perfectly suitable for emulsions and aqueous products.

Effective also at
high pH levels!

For more formulation ideas visit us at:

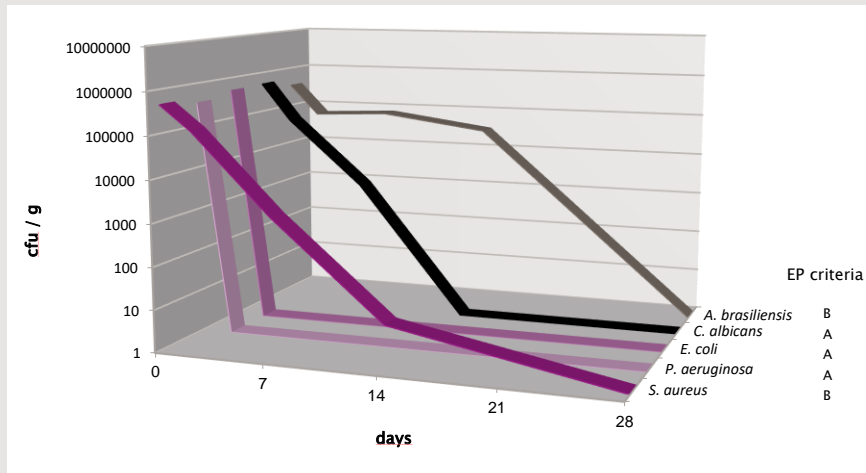
<https://www.dr-straetmans.de/en/products>

Proof of Performance

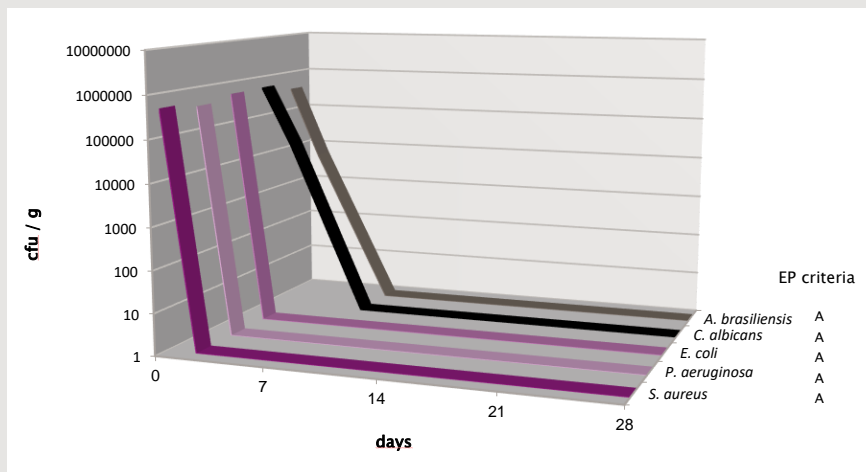
MICROBIOLOGICAL CHALLENGE TESTS

Performance at high pH in O/W emulsions used alone and in combination with organic acids

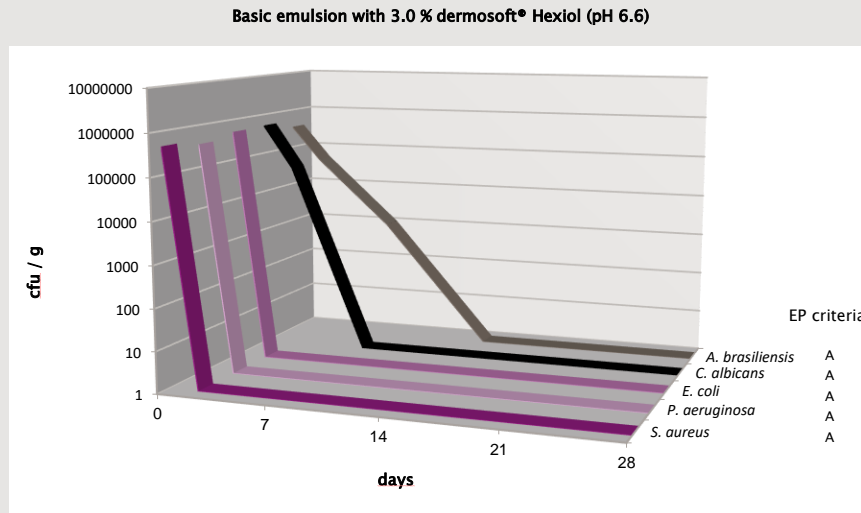
Basic emulsion with 2.0 % dermosoft® Hexiol (pH 6.5)



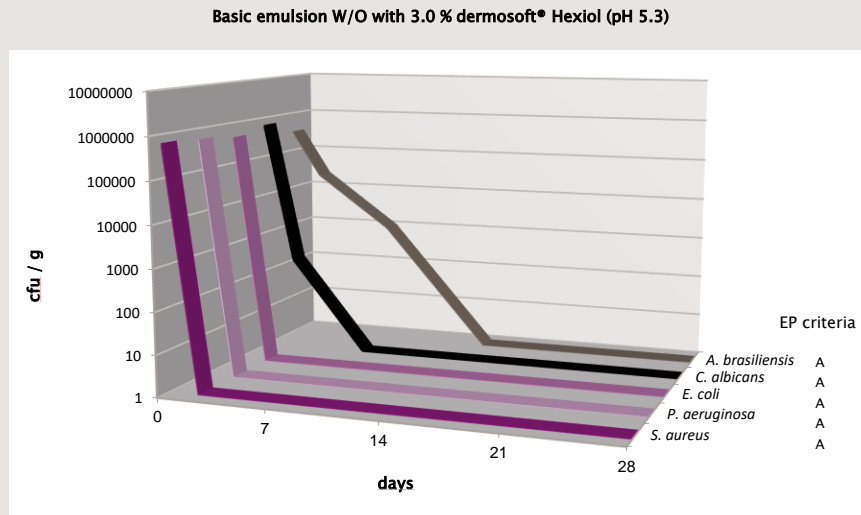
Basic emulsion with 2.0 % dermosoft® Hexiol and 0.4 % dermosoft® 688 (pH 6.5)



Performance alone with higher dosage at higher pH



Performance in W/O emulsions



Trade Information

International Approval*	EU, USA, Canada, China, Japan, South Korea, New Zealand
Packaging	25 kg
Shelf life (<i>stored in original container</i>)	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, refer to Product Data Record (PDR) document chapter 5.

For further information, please contact:
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