Multifunctional Additives

Product Information

dermosoft® LP

Product features

- Multifunctional cosmetic ingredient
- Moisturizing and refatting
- Skin friendly
- Strong antimicrobial activity
- Ideal for lecithin containing products
- Alternative to parabens

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dermosoft® LP

dermosoft® products cover many cosmetic functions

The product line

dermosoft® products are carefully chosen multifunctional cosmetic ingredients. The well balanced product profiles are tailored to the needs of cosmetic formulations. Basic cosmetic functions like hydrating, conditioning, masking etc. are combined with an excellent antimicrobial profile. **dermosoft®** products will meet many of your requirements for the improvement of cosmetic formulations and along the way protect the product against microorganisms. With the aid of **dermosoft®** cosmetic products can easily be formulated without traditional preservatives.

dermosoft® LP features antimicrobial activity

dermosoft® LP

The product consists of a synergistic blend of ingredients. Glyceryl caprylate is produced using only plant materials. Glyceryl monoesters have long ago been recognized as versatile antimicrobially active additives[1,2]. Glyceryl caprylate has, due to its structure, moisturizing and refatting properties. This will help to improve and maintain the moisture and balanced environment of the skin. Caprylyl glycol has been a standard ingredient for 15 years with its wetting and refatting properties and an excellent profile of antimicrobial activity. Phenylpropanol covers with its delicate scent undesired raw material odours and boosts the fungicidal activity of the blend. Thus, the antimicrobial activity of **dermosoft® LP** can convert most cosmetic formulations in self preserving products – with no need for traditional preservatives.

Efficacy and easy application are the cornerstones of dermosoft® LP

Application

dermosoft® LP has a high efficacy against microorganisms in a broader range of pH compared to many other compounds. The liquid raw material can be simply mixed with the aqueous phase or the oil phase at any step of production. Preferably it is dissolved in the aqueous phase at higher temperature (80 ° C). Please make sure when dissolving **dermosoft® LP** that the pH is not higher than 7 to avoid hydrolysis of glyceryl caprylate. With a recommended use concentration of 1,0 % to 1,5 % **dermosoft® LP** can be used in emulsions, shampoos, shower gels and hydroalcoholic products. **dermosoft® LP** is clearly soluble in surfactant based products. For clear aqueous or hydroalcoholic products the addition of solubilizing agents or glycols may be necessary. In some cases **dermosoft® LP** can have an impact on emulsion stability. Please check stability issues carefully. **dermosoft® LP** is particularly suited for application in lecithin containing products, where parabens normally fail to preserve the product sufficiently.

dermosoft® LP

- is a multifunctional wetting and refatting agent
- has strong antimicrobial activity
- ideal for lecithin containing products

dermosoft® LP

Characteristics of dermosoft® LP				
Appearance	Colourless liquid			
INCI	Caprylyl Glycol, Glyceryl Caprylate, Glycerin, Phenylpropanol, Aqua			
Recommended dosage	0,8 – 1,5 %			
Antimicrobial performance ●● very good ● fair ●/○ moderate ○ not sufficient	Gram+	Gram-	Yeast	Mould
	●●	●●	●●	●●
pH-range	4,0 – 7,0			
Regulatory status	Registered in EU, US, Japan			

Cosmetic functions

Hydrating

The hydrating effect of glycerol is well known and has been proven in many clinical studies[3]. It's efficacy has been shown to supersede the hydrating capacity of urea or propylene glycol[4]. The glycerol and the proportion of esterified glycerol contained in **dermosoft® LP** will contribute to the hydrating properties of the cosmetic product at recommended use concentrations.

Refatting

Different cosmetic functions are obtained with dermosoft® LP

Due to the ambiphilic structure of its components **dermosoft® LP** can also deliver and retain oil components in the upper layer of the skin. The compound works as a link between hydrophilic and lipophilic structures in the skin, thus improving the delivery of oil components to the skin.

Antimicrobial efficacy

Although **dermosoft® LP** may be employed for many of its additional valuable cosmetic functions, the excellent antimicrobial activity is appreciated by many manufacturers for improving the microbiological stability. In most cases it will allow to eliminate traditional preservatives from the product and is a valuable alternative to parabens. As can be seen in the challenge tests shown below all relevant germs are destroyed quickly and effectively. For an optimum efficacy the pH of the formulation should be between 5,0 and 7,0.

The following figures show how the **dermosoft®** concept makes it possible to formulate microbiologically sound products without traditional preservatives. All the microbiological tests are done in an independent and certified laboratory according to the Pharmacopoeia Europea. The following results show challenge tests with products that contain **dermosoft® LP**.

dermosoft® LP

Many cosmetic formulations can be stabilized with **dermosoft® LP**

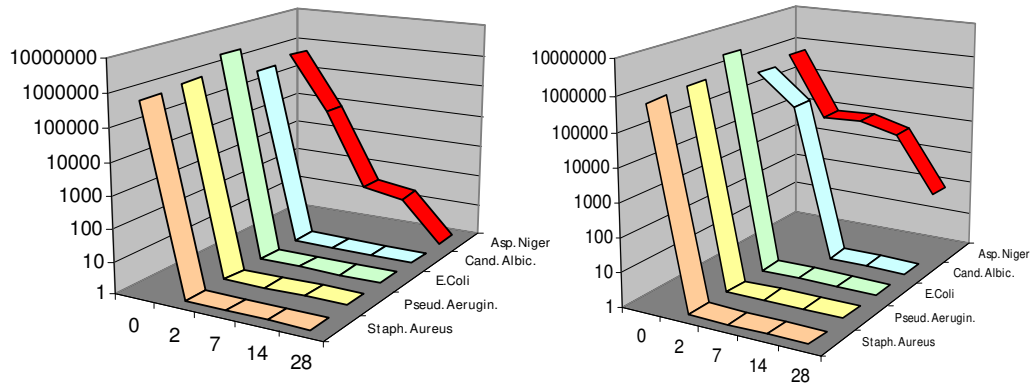

Figure 1: Challenge Test with a standard O/W-emulsion containing phospholipids stabilized with 1,0 % **dermosoft® LP** (left) and 0,8 % **Phenonip®** (right). Note the difference in efficacy regarding C. albicans and A. niger.

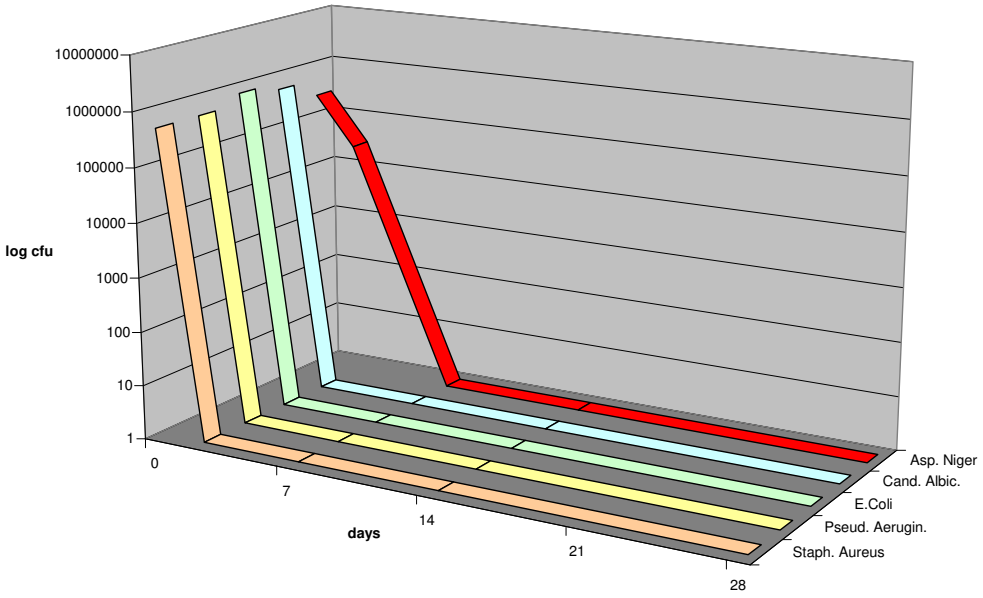

Figure 2: Challenge Test with Cream Conditioning Shower Gel stabilized with 1,0 % **dermosoft® LP**

dermosoft® LP

Many cosmetic formulations can be stabilized with dermosoft® LP

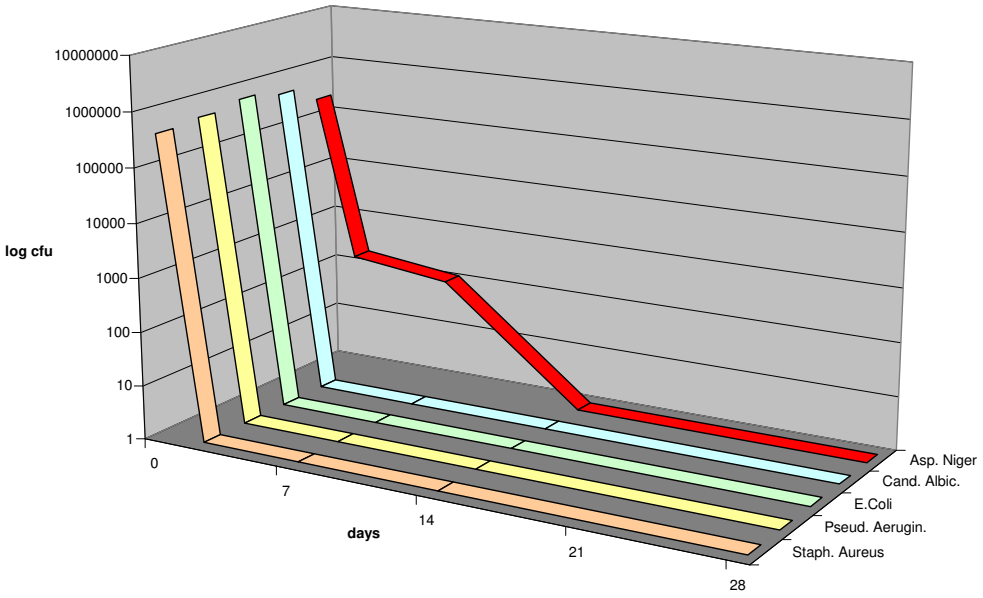

Figure 3: Challenge Test with Anti Cellulite Slimming Gel stabilized with 1,0 % **dermosoft® LP**

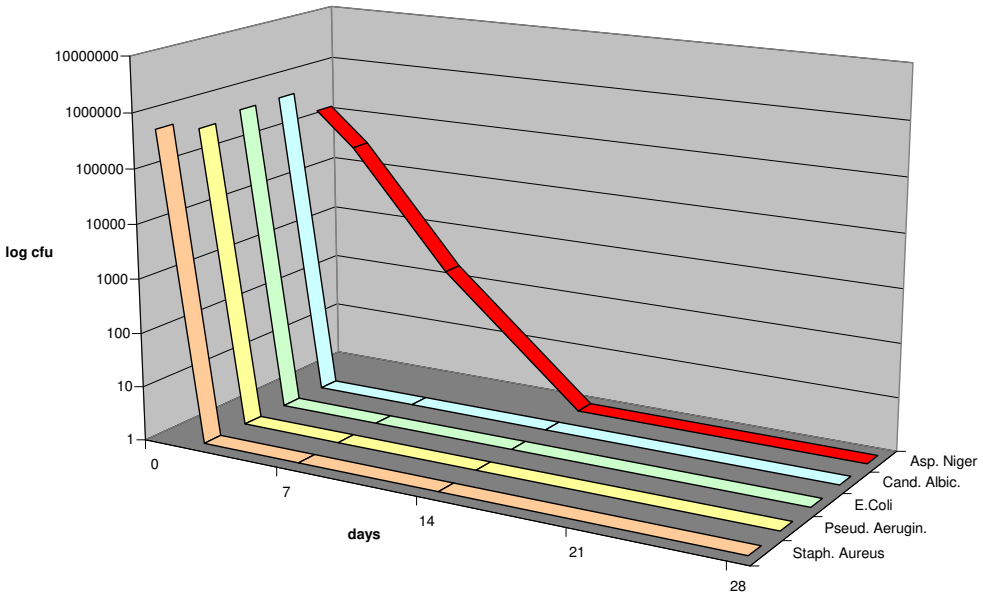

Figure 4: Challenge Test with Handbalm stabilized with 1,2 % **dermosoft® LP**

dermosoft® LP

After Shave Balm

87-4-22-1107

Claims: **Comfortable and smooth skin feel**
Long lasting skin protection

Phase	Ingredient	INCI	Supplier	%
A	Deionised Water	Aqua		89.75
A1	Sepinov EMT 10	Hydroxyethyl Acrylate/Sodium Acryloyldimethyl Taurate Copolymer	Seppic	1.50
	Glycerol (86 %)	Glycerin		2.00
	symbio®quat	Hydroxypropyl Oxidized Starch PG-Trimonium Chloride, Starch Hydroxypropyltrimonium Chloride	**Dr. Straetmans**	**1.70**
	dermosoft® LP	Caprylyl Glycol, Glycerin, Glyceryl Caprylate, Phenylpropanol	**Dr. Straetmans**	**1.00**
B	**dermofeel® GSC**	Glyceryl Stearate Citrate	**Dr. Straetmans**	**0.50**
	dermofeel® BGC	Butylene Glycol Dicaprylate/Dicaprate	**Dr. Straetmans**	**3.00**
C	Frag. 49312174 Aqua Power	Parfum	drom	0.40
D	Sodium Hydroxide (sol.10%)	Sodium Hydroxide	Merck	0.15
				100.00

Manufacturing Procedure:
1. Place water of phase A to the vessel and heat up to 70°C.
2. Add A1 while stirring and stir until homogenous gel is obtained.
3. Add remaining components phase A.
4. Heat phase B to 60°C and add phase phase A while stirring. Homogenize for approx. 1 – 2 min. using an Ultra Turrax.
5. Cool down while stirring. Add part C below 40°C.
6. Adjust pH with D and cool down to room-temperature.

Specification Values:
Appearance: White emulgel.
pH value: 5.0 – 6.5.
Viscosity (Brookfield: Helipath TF; Speed 10): Approx. 5.000 mPa·s.
Centrifugation (4000 rpm, 15 min.): No separation.

Stability:
Stable for more than 3 months at 40°C, 20°C, and 4°C.

Microbiological Stability: Proven.

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dermosoft® LP

Protecting Hand Lotion

K006-1.4B-210

Claims: **Phospholipid complex for skin barrier restructuration**
Rich skin feel and anti-irritant

Phase	Ingredient	INCI	Supplier	%
A	Deionised Water	Aqua		68.25
	Glycerol (85%)	Glycerin	Merck	3.50
	dermofeel® PA-3	Sodium Phytate, Aqua	**Dr. Straetmans**	**0.10**
	dermosoft® LP	Caprylyl Glycol, Glycerin, Glyceryl Caprylate, Phenylpropanol	**Dr. Straetmans**	**0.80**
A1	Cosmedia SP	Sodium Polyacrylate	Cognis	0.20
	Keltrol CG-RD	Xanthan Gum	CP Kelco	0.25
B	**symbio®muls GC**	Glyceryl Stearate Citrate, Cetearyl Alcohol, Glyceryl Caprylate	**Dr. Straetmans**	**4.00**
	dermofeel® PGPR	Polyglyceryl-3 Polyricinoleate	**Dr. Straetmans**	**0.50**
	dermofeel® sensolv	Isoamyl Laurate	**Dr. Straetmans**	**6.00**
	Nexbase 2006	Hydrogenated Polydecene	Jan Dekker	5.00
	Cocoa Butter	Theobroma Cacao (Cocoa) Seed Butter	Gustav Heess	2.00
	Xiameter PMX 200 Fluid	Dimethicone	Dow Corning	1.00
	Xiameter PMX 345 Fluid	Cyclopentasiloxane, Cyclohexasiloxane	Dow Corning	3.00
	dermofeel® Toco 70 non-GMO	Tocopherol, Helianthus Annuus (Sunflower) Seed Oil	**Dr. Straetmans**	**0.10**
C	**Isocell Care**	Water, Lecetin, Glycerin, Butylene Glycol Sodium styrene/acrylates copolymer	**Lucas Meyer***	**3.00**
	Isocell Life	Aqua, Glycerin, Butylene Glycol, Sodium Styrene/Acrylates Copolymer	**Lucas Meyer***	**2.00**
	Perf. Sweet Orange P01 06656	Parfum	Frey & Lau	0.10
	Perf. Citronoil P0119551	Parfum	Frey & Lau	0.20
	Citric Acid (sol 20%)	Citric Acid		q. s.
				100.00

Manufacturing Procedure:
1. Heat phase A to 78°C and disperse phase A1.
2. Heat phase B up to 78°C. Emulsify phase B into phase A while stirring. Homogenize for 1-2 min using Ultra Turrax.
3. Start to cool down under medium stirring.
4. Add components of phase C below 35°C. Adjust pH value if necessary.

Specification Values:
Appearance: white cream.
pH: 5.5 – 6.0
Viscosity (Brookfield Helipath TF, speed 10): 15.000 - 25.000 mPa·s.
Centrifugation (15 min., 4.000 rpm): No separation.

Stability: More than 3 months stable at 20°C, 40°C and 4°C.

* **distributed in Germany by Dr. Straetmans GmbH**

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dermosoft® LP

Shampoo for Sensitive Hair and Skin

L013-37C-308

Claims: **Well balanced conditioning for hair and scalp**
Excellent conditioning for all hair types

Phase	Ingredient	INCI	Supplier	%
A	Tap Water	Aqua		57.50
	dermofeel® PA-3	Sodium Phytate, Aqua	**Dr. Straetmans**	**0.10**
	Ajidew ZN-100	Zinc PCA	Ajinomoto	0.20
	Glycerol (85%)	Glycerin	Merck	3.00
	D-Panthenol	Panthenol	BASF	1.50
	Texapon N 70	Sodium Laureth Sulfate	Cognis	14.00
B	Rewoteric AM C	Sodium Cocoamphoacetate	Evonik	6.00
	Amisoft CS-22 (25% AS)	Sodium Cocoyl Glutamate, Disodium Cocoyl Glutamate	Ajinomoto	4.00
	dermosoft® LP	Caprylyl Glycol, Glycerin, Glyceryl Caprylate, Phenylpropanol	**Dr. Straetmans**	**1.00**
	dermosoft® 688	p-Anisic Acid	**Dr. Straetmans**	**0.20**
	dermosoft® DGMC	Polyglyceryl-2 Caprate	**Dr. Straetmans**	**1.00**
	Antil 127	PEG-120 Methyl Glucose Dioleate	Evonik	0.60
	RonaCare Bisabolol nat.	Bisabolol	Merck	0.10
	Perf. Baby Cotton 449264	Parfum	Symrise	0.50
C	Euperlan PK 1200	Coco-Glucoside, Glycol Distearate, Glycerin	Cognis	7.50
	symbio®quat	Hydroxypropyl Oxidized Starch PG-Trimonium Chloride, Starch Hydroxypropyltrimonium Chloride	**Dr. Straetmans**	**2.80**
	Sodium Chloride	Sodium Chloride		q. s.
	Citric Acid (sol.20%)	Citric Acid	Merck	q. s.
				100.00

Manufacturing Procedure:

1. Mix ingredients of phase A until completely dissolved.
2. Premix phase B. Make sure that **dermosoft® 688** is completely dissolved and add to phase A.
3. Add ingredients of Phase C and adjust viscosity with sodium chloride and pH with citric acid.

Specification Values:
Appearance: white pearlescent viscous gel.
pH: 5.2 – 5.4
Viscosity (Brookfield: LV 3; Speed 10): 3.000 – 6.000 mPa·s.

Stability Stable for more than 3 months at 20°, 40°, 4°C.

Microbiological stability: Proven.

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dermosoft® LP

Mild Body Shower

L022-3.10B-208

Claims: **refined and velvety skin feel**
Reduces skin irritation and roughness

Phase	Ingredient	INCI	Function	%
A	Tap Water	Aqua		33.40
	dermofeel® PA-3	Sodium Phytate, Aqua	**Dr. Straetmans**	**0.10**
	dermosoft® LP	Caprylyl Glycol, Glyceryl Caprylate, Glycerin, Phenylpropanol, Aqua	**Dr. Straetmans**	**1.00**
	Glycerol	Glycerin	Merck	10.00
	Rewoteric AMC	Sodium Cocoamphoacetate	Evonik	20.00
	Amisoft CS-22 (sol. 25%)	Sodium Cocoyl Glutamate	Ajinomoto	5.00
	Protelan LS 9011	Sodium Lauroyl Sarcosinate	Zschimmer & Schwarz	8.00
	Lamesoft PO 65	Coco Glucoside, Glyceryl Oleate	Cognis	2.00
	Perf. 494118 Lotus Blanc	Parfum	Drom	0.50
B	Tap Water	Aqua		10.00
	Viscolam Mac 10	Acrylates Copoymer	Lamberti	7.50
C	Sodium Hydroxide (sol.10%)	Sodium Hydroxide	Merck	q. s.
D	**symbio®quat**	Hydroxypropyl Oxidized Starch PG-Trimonium Chloride, Starch Hydroxypropyltrimonium Chloride	**Dr. Straetmans**	**2.00**
	Cosmospheres WTS-M	Lactose, Microcrystalline Cellulose, Tocopheryl Acetate, Helianthus Annuus	Pelletech Ltd.	1.00
				100.00

Manufacturing Procedure:
1. Dissolve ingredients of phase A in given order under stirring until a clear solution is obtained. Make sure each ingredient is completely dissolved!
2. Add premix of phase B and adjust pH value to 6.5 – 7.0 with C if necessary.
5. Add components of phase D and stir gently until homogeneous.

Specification Values:
Appearance: clear, viscous gel with white beads.
pH: 6.5 – 7.0.
Viscosity (Brookfield: Helipath TF; Speed 10): > 5.000 mPa·s.

Stability: Stable for more than 3 months at 20°C, 40°C, and 4°C.

Microbiological stability: Proven.

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dermosoft® LP

Dozens of formulation examples are compiled in our Formulary

More formulations with our products are available for both, traditional and natural cosmetics concepts. Please contact us to receive your copy of our general Formulary and our Formulary NATURE Edition, respectively.

Toxicology

dermosoft® LP is not irritating, and does not contain genetically modified material, dioxine, phthalates, BSE-related material or CMR-material.

Packing units

dermosoft® LP is available in 25 kg canisters.

Environmental Information

dermosoft® LP is produced in an environmentally and toxicologically unobjectionable process by mixture of the active materials.

Handling and storage

In closed original containers **dermosoft® LP** can be stored for at least 3 years. **dermosoft® LP** does not need to be preserved.

Literature

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4 Bettinger J, et al., Comparison of different non-invasive test methods with respect to the effect of different moisturizers on skin, *Skin Research and Technology*, 1999, 5 (1), 21–27.

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