

Technical Information

dermofeel® P-30 MB

Natural based conditioner for hair and skin cleansing formulations

Intended use

Natural based refatting agent for hair and skin, PEG-free emollient.

Benefits at a glance

- Hair conditioning properties
- Protection of skin barrier
- Thickening of surfactant based formulations
- Readily biodegradable
- 100% naturally derived

INCI (PCPC name)

PCA Glyceryl Oleate

Chemical and physical properties (not part of specifications)

Form	Clear, amber-colored viscous liquid
Solubility in:	
water	Not soluble
Aqueous surfactant solutions, e.g. SLES, CAPB	Clearly soluble up to 3%
Ethanol	Soluble (5%)

Properties

dermofeel® P-30 MB has hair conditioning properties. In a conditioning rinse, it performs similarly to Cetrimonium Chloride (CTAC), see figure 1.

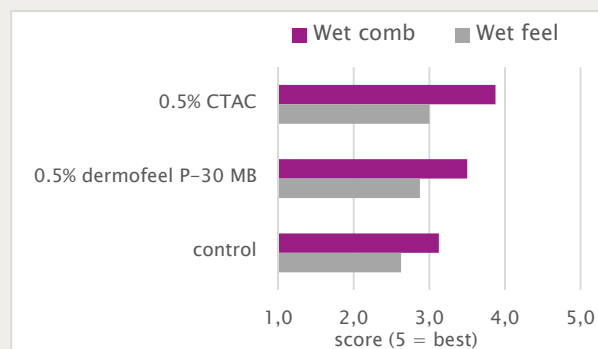


Figure 1: Sensory hair swatch test results after conditioning rinse treatment of bleached European hair bundles (5% Cetearyl Alcohol; 0.5% Ceteareth-25; x% a.m. additive, pH=4).

dermofeel® P-30 MB provides a skin conditioning effect and protects the skin barrier. TEWL tests show that its use lowers the increase of the transepidermal water loss (TEWL) caused by the skin cleansing (see figure 2).

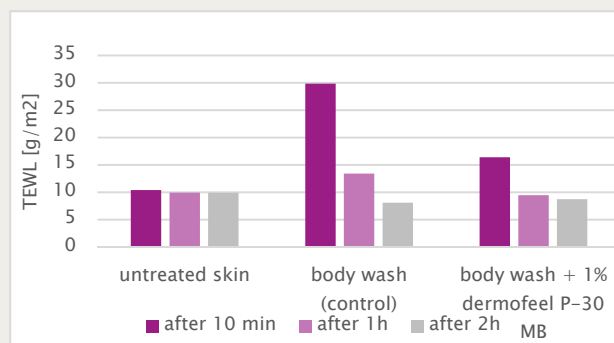


Figure 2: TEWL values of skin after body wash treatment (11.2% Sodium Laureth Sulfate; 3.8% CAPB; 4 test persons).

When used in shampoos or shower gels, **dermofeel® P-30 MB** increases viscosity as an additional benefit. The thickening efficacy profile is similar to that of Cocamide DEA.

Figure 3 shows the thickening efficacy compared to other hydrophilic emollients in a PEG- and Sulfate-free system.

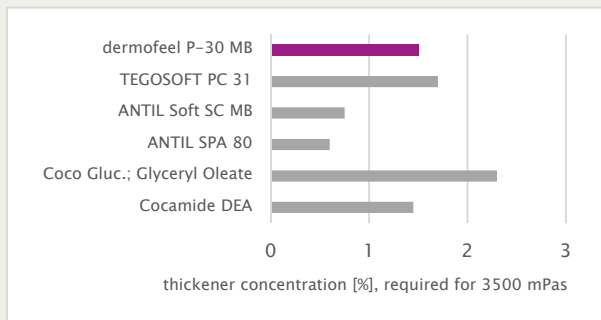


Figure 3: Thickening efficacy in PEG- and sulfate-free surfactant system (4.8% Sodium Cocoamphoacetate; 4.8% CAPB; 3.6% Disodium Lauryl Sulfosuccinate, pH=5).
 TEGOSOFT® PC 31 (Polyglyceryl-3 Caprate)
 ANTIL® Soft SC MB (Sorbitan Sesquicaprylate)
 ANTIL® SPA 80 (Isostearamide MIPA; Glyceril Laurate)

Application

dermofeel® P-30 MB is used as a natural based conditioning agent for hair and skin in:

- Conditioning shampoos
- Conditioning rinses
- Body washes
- Liquid soaps

Usage level

- Shampoo: 0.5 – 1.0%
- Conditioning rinse: max. 2.0%
- Leave-in conditioner: 0.5 – 1.0%
- Skin cleansing products: 0.5 – 2.0%

Processing

- Hot and cold processable.
- For best performance, pH should be adjusted between 4 – 5.5
- Incompatible with alkaline medium (> pH 7).
- Surfactant based formulations: **dermofeel® P-30 MB** is mixed with one of the concentrated surfactants before addition of water.
- Emulsions: **dermofeel® P-30 MB** is added to the oil phase.
- Water based formulations: **dermofeel® P-30 MB** and other lipophilic ingredients are mixed with a solubilizer before addition of water.

Storage

Store at temperatures between 5°C–30°C in original closed package.

Hazardous goods classification

Information concerning

- classification and labelling according to regulations for transport of chemicals
- protective measures for storage and handling
- measures in case of accidents and fire
- toxicological and ecotoxicological effects

is given in our safety data sheets.

Guideline formulations

Natural conditioner (UL 5877/9)	
Water	ad 100.00%
TEGO® Alkanol 1618	6.00%
TEGO® Care PBS 6 MB (Polyglyceryl-6 Stearate; Polyglyceryl-6 Behenate)	2.00%
dermofeel® P-30 MB	1.50%
dermofeel® sensolv MB (Isoamyl Laurate)	2.00%
Glycerin	2.00%
Verstabil® TBG MB (Triethyl Citrate; Glyceril Caprylate; Benzoic Acid)	1.20%
Perfume ¹	q.s.

Preparation

Blend ingredients and heat up to approx. 65°C. Homogenize. Cool down while stirring. Homogenize again for some seconds to increase initial viscosity. Adjust pH value to pH 4.0–4.5.

Remarks

Viscosity after 1 day (Brookfield): 43 Pas.
 Microbiological safety: challenge test passed.
Natural content c_n (incl. water, ISO 16128): 87.8%,
Natural origin content c_{no} (incl. water, ISO 16128): 99.84%

¹not considered for calculation

Natural clear hair and body shampoo, PEG-free
(UL 5874/3/1)

Sodium Lauryl Sulfate, 30% ¹	20.00%
Sodium/Disodium Cocoyl Glutamate, 25% ¹	5.00%
Lauryl Glucoside, 50% ¹	18.50%
Glycerin	5.00%
Perfume ¹	0.20%
dermofeel® P-30 MB	0.50%
ANTIL® Soft SC MB (Sorbitan Sesquicaprylate)	1.00%
Water	ad 100.00%
Verstabil® BL non GMO (Aqua; Sodium Levulinate; Sodium Benzoate)	2.00%
Citric Acid, 30%	2.60%

Preparation

Blend ingredients in the given order.
Adjust pH value with citric acid to pH 5.0 – 5.3.

Remarks

Clear gel.
Viscosity (Brookfield, 25°C, LV2, 60rpm):
2200 mPas.
Microbiological safety: challenge test passed.
Natural content c_n (incl. water, ISO 16128): 51.6%,
Natural origin content c_{no} (incl. water, ISO 16128): 99.8%
¹not considered for calculation resp. based on current
supplier information /own interpretation

Natural wash for blemished skin, PEG-free
(L014-64.20-0612)

Phase A

dermofeel® PA-3 (Sodium Phylate; Aqua; Alcohol)	0.10%
Sodium Coco Sulfate (Sulfofon 1216 G, BASF) ¹	4.0%
Disodium Cocoyl Glutamate; Sodium Cocoyl Glutamate (Amisoft CS-22, Ajinomoto) ¹	3.20%
Lauryl Glucoside, 50% ¹	12.00%
Glycerin	5.00%
dermofeel® P-30 MB	1.00%
dermosoft® decalact MB (Sodium Caproyl/Lauroyl Lactate)	1.00%

Phase B

Water	ad 100.00%
TEGOSOFT® PC 31 (Polyglyceryl-3 Caprate)	0.30%
dermofeel® PA-3 (Sodium Phylate; Aqua; Alcohol)	0.10%
dermosoft® 1388 eco (Glycerin; Aqua; Sodium Levulinate; Sodium Anisate)	3.50%

Phase Z

Perfume, Dye	q.s.
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Preparation

- Mix ingredients of phase A in the given order and stir until completely dissolved.
- Add components of phase B in the given order.
- Add components of phase C.
- Adjust pH value with citric acid to pH 5.0 – 5.3.

Remarks

Clear gel. Viscosity (Brookfield, 21°C, RV4, 100 rpm):
2000 – 4000 mPas.
Microbiological safety: challenge test passed.
Natural content c_n (incl. water, ISO 16128): 75.9%,
Natural origin content c_{no} (incl. water, ISO 16128): 100%
¹ based on current supplier information

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Evonik Nutrition & Care GmbH
Goldschmidtstraße 100
45127 Essen, Germany
Phone +49 201 173 2546
Fax +49 201 173 712546
personal-care@evonik.com
www.evonik.com/personal-care

