



IOI OLEOCHEMICAL

PERSONAL CARE

SOFTISAN[®] conditionHAIR



100% natural-based
Hair conditioner
Skin moisturiser



SOFTISAN® conditionHAIR

100% natural-based
Hair conditioner
Skin moisturiser

SOFTISAN® conditionHAIR

(INCI: PCA Glyceryl Oleate) is a palm-free, vegan hair conditioner and skin moisturizer that is 100% natural-based and thus suitable for natural cosmetics. In hair care products SOFTISAN® conditionHAIR leads to better combability and works in combination with hydrophobic materials to improve the combability of hair, just like standard cationics.

In skin care applications SOFTISAN® has a positive influence on the humidity level of the skin through pyrrolidone carboxylic acid, which has a natural moisturising effect. Besides, SOFTISAN® protects the skin barrier by reducing transepidermal water loss.

DATASHEET

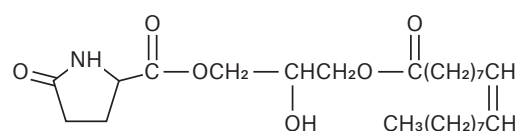
FORMULATOR BENEFITS:

- Recommended dosage: 0.5-2%
- Applicable for hot and cold processes
- Recommended pH level: 4.0-7.0
 - pH <5.5 for optimum efficacy in rinse-off products
 - pH >5.5 for good affinity to hair and skin through hydrophobic interaction

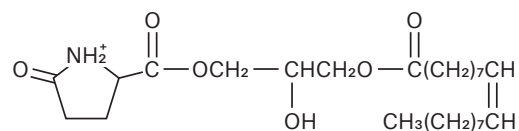
CONSUMER BENEFITS:

- Suitable for natural cosmetics
- Improves combability of hair
- Enhances skin health and strengthens the skin barrier

CHEMICAL STRUCTURE



at pH >5.5

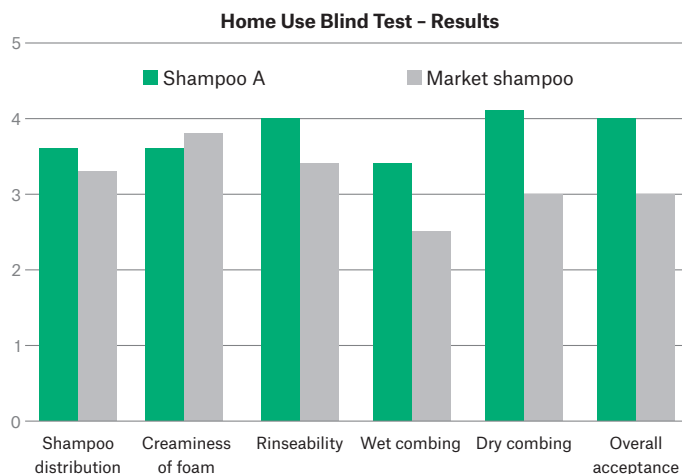


at pH <5.5

At physiological pH (5.5), this amino acid derivative provides a positive charge, hence shows high substantivity on skin and hair. At other pH levels, it shows good affinity to hair due to hydrophobic interaction.

HAIR CARE: Consumer evaluation on slightly damaged hair

Consumers with slightly damaged hair (n=8) compared two shampoos in a home-in-use test. A formulation containing 0.7% SOFTISAN® conditionHAIR and a natural market shampoo were evaluated.



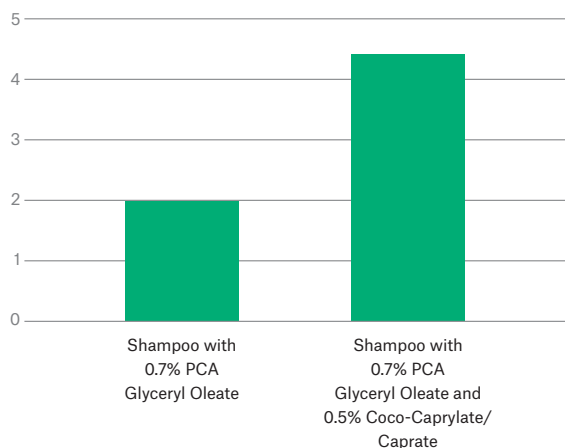
TRADENAME	INCI	Shampoo A %
Keltrol® SFT-Gel 1,2%	Xanthan Gum	62.8
Glycerin	Glycerin	5.0
Euxyl® K 700	Phenoxyethanol, Benzyl Alcohol, Potassium Sorbate, Aqua, Tocopherol	1.0
SOFTISAN® conditionHAIR	PCA Glyceryl Oleate	0.7
EcoSence™ 1200	Lauryl Glucoside	4.0
EcoSence™ 919	Coco-Glucoside	10.0
Sulfetal LS-U	Sodium Lauryl Sulphate	13.5
Ethanol	Ethanol	3.0
Citric acid	Citric Acid	q.s.
Aqua dem.	Aqua	Ad. 100.0

Shampoo A containing SOFTISAN® conditionHAIR bettered the market shampoo in the following performance categories:

- Better rinseability
- Better wet combing
- Better dry combing
- Higher overall acceptance

HAIR CARE: deposition of hydrophobic materials

The wet combing qualities of standardised hair tresses – bleached for 3h and treated with two shampoos – were compared. Five panellists had to choose the shampoo with the best combability. Both formulations had the same shampoo base but differed in their concentration of MIGLYOL® Coco 810 (INCI: Coco-Caprylate/Caprates)



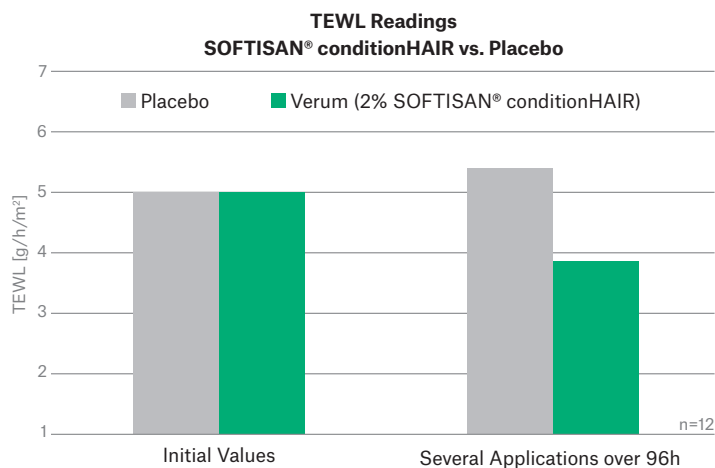
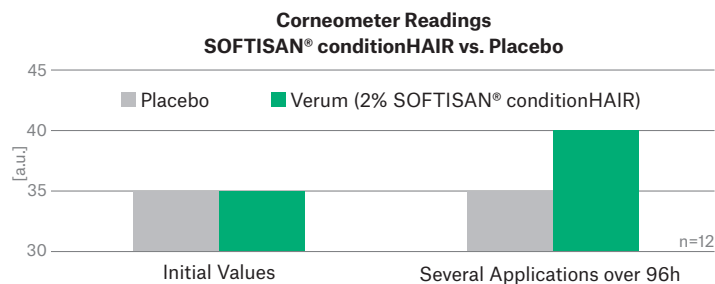
For 100% of the panelists hair tresses treated with a shampoo containing a combination PCA Glyceryl Oleate and Coco-Caprylate/Caprates led to improved wet combing than hair tresses treated with a shampoo containing SOFTISAN® conditionHAIR alone. This demonstrates the ability of SOFTISAN® conditionHAIR to deposit hydrophobic materials like MIGLYOL® Coco 810 via coacervation.

SKIN CARE: corneometer and tewameter studies

Corneometer and tewameter studies were conducted to show the positive influence of SOFTISAN® conditionHAIR on skin hydration and transepidermal water loss. 12 probands applied two creams, a placebo and a verum, on their left or right forearm twice a day for several days.

Basic test emulsion used for corneometer and tewameter studies:

TRADE NAME	INCI	Placebo [%]	Verum [%]
IMWITOR® 372 P	Glyceryl Stearate Citrate	3.0	3.0
IMWITOR® 900 K	Glyceryl Stearate	2.0	2.0
Nafol® 1618	Cetearyl Alcohol	1.0	1.0
WITARIX® MCT 60/40	Caprylic/Capric Triglyceride	20.0	20.0
Keltrol® CG-T	Xanthan Gum	0.3	0.3
SOFTISAN® conditionHAIR	PCA Glyceryl Oleate	0.0	2.0
Euxyl® PE 9010	Phenoxyethanol (and) Ethylhexylglycerin	0.7	0.7
Water	Aqua	73.0	71.0



SOFTISAN® conditionHAIR leads to the following consumer-perceivable benefits:

- Hydrates the stratum corneum
- Enhances skin health
- Reduces transepidermal water loss
- Improves the skin barrier

FORMULATIONS:

Balm-to-Oil Moisturizing Cleanser (No.: 811)

PHASE	TRADE NAME	INCI	%
A	WITARIX® MCT C8	Tricaprylin	12.0
A	SOFTISAN® conditionHAIR	PCA Glyceryl Oleate	0.5
A	MIGLYOL® T-C7	Triheptanoin	12.0
A	MIGLYOL® 8810	Butylene Glycol Dicaprylate/Dicaprate	10.0
A	SOFTIGEN® PURA	Olus Oil	10.0
A	IMWITOR® 600	Polyglyceryl-3 Polyricinoleate	2.4
A	Kahlwax 8104 Beeswax White	Cera Alba	14.0
A	Kahlwax 6692 Rose Wax	Rosa Damascena Flower Cera	2.0
A	Plantacare® 2000 UP	Decyl Glucoside	20.0
A	Sunflower oil	Helianthus Annuus (sunflower) Seed Oil	16.6
A	Tocopherol	Tocopherol	0.5

Preparation:

1. Heat phase A to 75°C.
2. Cool down to 45°C while stirring.

Suppliers:

IOI Oleo GmbH: IMWITOR®, MIGLYOL®, SOFTISAN®, SOFTIGEN®, WITARIX®
 KahlWax: Beeswax, Rose Wax
 BASF: Plantacare®

Hair & Scalp Hydrating Mask (No.: 814)

PHASE	TRADE NAME	INCI	%
A	Sucrathix® VX	Microcrystalline Cellulose (and) Cellulose Gum (and) Xanthan Gum	1.3
A	Glycerin	Glycerin	10.0
A	Aqua dem.	Aqua	Ad. 100.0
B	NAFOL® 1618 H	Cetearyl Alcohol	4.0
B	NACOL® 22-98	Behenyl Alcohol	1.0
B	SOFTISAN® 649	Bis-Diglyceryl Polyacyladipate-2	2.4
B	IMWITOR® 372 P	Glyceryl Stearate Citrate	4.0
B	WITARIX® MCT C8 pure coconut	Tricaprylin	5.0
B	SOFTISAN® conditionHAIR	PCA Glyceryl Oleate	6.0
B	MIGLYOL® 8810	Butylene Glycol Dicaprylate/Dicaprate	5.0
B	Shea butter	Butyrospermum Parkii (Shea) Butter	1.0
C	Euxyl® PE 9010	Phenoxyethanol (and) Ethylhexylglycerin	1.0
C	Fragrance	Parfum (EU)/ Fragrance (US)	q.s.

Preparation:

1. Take the phase A water and glycerine. Disperse Sucrathix VX while stirring and heat to 80°C.
2. Weigh all ingredients of phase B and heat to 80°C.
3. Add phase B to phase A under constant stirring and stir till the mixture reaches 40°C.
4. Add phase C to the above mixture. Homogenise the product at 12,000 rpm for 3 minutes.
5. Check for pH. Adjust pH to between 4 and 4.5.

Suppliers:

IOI Oleo GmbH: IMWITOR®, MIGLYOL®, SOFTISAN®
 Alchemy Ingredients: Sucrathix® VX
 Sasol: NAFOL®, NACOL®

IOI Oleo GmbH

Hamburg, Germany | +49 40 28 00 31-0
 personalcare@ioioleo.de | www.ioioleo.de

In particular, IOI Oleo GmbH makes no representations or warranties, neither express nor implied, of merchantability, fitness for a particular purpose that the products to which the information refers may be used without infringing the intellectual property rights of others, or of any other nature hereunder with respect to the information or the products to which the information refers. In no case shall the information be considered a part of our Terms and Conditions of Sale.