

BIOGRÜNDL, S.L.
POLÍGONO LES FALLULLES, NAVE 34 -SECTOR 2-
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TECHNICAL DATA SHEET

CONDITIONING, RESTORATIVE AND SOFTENING COMPLEX / A / HGL / CA11 /



Trade Name: CONDITIONING, RESTORATIVE AND SOFTENING COMPLEX / A / HGL / CA11 /.

Product Code: CARSAHGLC11.

INCI Name: AQUA, GLYCERIN, HYDROLYZED WHEAT PROTEIN, CETRIMONIUM CHLORIDE, BETAINE, HYDROLYZED KERATIN, COCO-GLUCOSIDE, COCOGLYCERIDES, POTASSIUM SORBATE.

INCI Status: Conforms.

REACH Status: Low Volume Exemption.

CAS Number: 7732-18-5; 56-81-5; 94350-06-8 / 222400-28-4 / 70084-87-6; 112-02-7; 107-43-7; 69430-36-0; 110615-47-9; 92045-31-3; 24634-61-5/ 590-00-1.

EC Number: 231-791-2; 200-289-5; 305-225-0 / 606-961-8 / 615-058-8; 203-928-6; 203-490-6; 274-001-1; 600-975-8; 295-412-2; 246-376-1.

Origin: GLYCERIN: Vegetable origin.

HYDROLYZED WHEAT PROTEIN, COCOGLYCERIDES: Vegetable origin.

CETRIMONIUM CHLORIDE: Vegetable-natural origin.

BETAINE, COCO-GLUCOSIDE: Natural origin.

HYDROLYZED KERATIN: Animal origin.

POTASSIUM SORBATE: Synthetic origin.

Processing: GMO Free. / No Ethoxylation. / No Irradiation. / No Sulphonation. / No BSE/TSE. / No CMR. / No SVHC. / No Nanomaterial. / No DEG. / No DEHP. / No Formaldehyde. / No Phthalates. /

Additives: Preservatives: Potassium sorbate. Paraben Free. / Antioxidants: None. / Other additives: None.

Solvents Used: Water and glycerin.

Appearance: Clear or slightly opalescent liquid.

Colour: Characteristic (yellowish to deep brown).

Odour: Characteristic.

Specific gravity: 1,000 - 1,300 g/cm³ (20°C approx.).

Direct pH value: 4,5 - 6,5 (20°C approx.).

Soluble/ Miscible: Water. Surfactants. Hydroalcoholic, hydroglyceric and hydroglycolic mixtures.

Ecological Information: Sustainable.

Microbial Count: Total aerobics: Max. 300 microorganisms / gram.

Fungi and yeasts: Max. 200 microorganisms / gram.

Pathogens: Total absence in 1 gram.

Suggested Use Levels: 2,0 – 10,0%.

Suggested Applications: Conditioning, frequent use on treatment shampoos. Masks and balsams. To be added to dyes providing better fixing and duration. Bubble baths.

Properties: Hydrating, conditioning, protector, restorative, softening.

Industrial packing: 1Kg., 5Kg., 25Kg., 225Kg.

Storage conditions: It is very important to keep the product in well closed containers, away from direct sunlight at temperatures not over 15°C. In case of not having refrigerators, store the product in the coolest and free from artificial light area.

Bibliography: - Atlas Ilustrado de Plantas Medicinales y Curativas, Ed. Susaeta.

- Dumont's grosse Kräuter Enzyklopädie.

- Fitocosméticos ALVAREZ CRUZ i BAGUE SERRANO.

- Gran enciclopedia de las plantas medicinales, BERDONCES i SERRA.

- Plantas medicinales, FONT i QUER.

- Proserpio G., Martelli A., Patri GF.; Elementi di Fitocosmeci; Ed. Sepem / Milano 1983.

- Websites.



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OVERVIEW

Preparations for hair washing, general speaking, have some drawbacks, because they weak and deteriorate the protective hydrolipidic film that covers hair, from root to tip, with the result of a dehydration; with losses in softness, brightness and volume, as well as, deterioration of its intimate protein structure.

These disadvantages are corrected, partially, with the use of conditioning shampoos based on quaternary silicones that, because of the affinity with hair, are fixed on it, forming a film that accumulates in several washings and gives matted look. In addition, they do not restore the protective hydrolipidic film.

After a long investigation to obviate the pointed disadvantages, both in normal as in conditioner shampoos, BIOGRÜNDL, S.L. presents **CONDITIONING, RESTORATIVE AND SOFTENING COMPLEX**, based on the following active components:

- Raw material derived from coco, coco-glucosides and coco-glycerides, whose mission is to preserve or restore the hair hydrolipidic film.
- Quaternized proteins, a complex composed by quaternary ammonium and hydrolyzed proteins, with high substitution degree of the amino group, which makes proteins highly cationic and gives to them excellent conditioning properties. In addition, quaternized proteins are compatible with all type of surfactants: anionic, cationic, amphoteric or non-ionic.

The incorporation of **CONDITIONING, RESTORATIVE AND SOFTENING COMPLEX** by BIOGRÜNDL, S.L., in cosmetics is justified by its following properties:

- Great affinity with hair.
- Good conditioner and moisturizer power.
- Enhance the quality, quantity and durability of foam.
- It forms a protective and elastic film that contributes to hair protection.
- It helps the penetration and effectiveness of other active substances.
- It strengthens hair restoring its intimate protein structure.
- It gives smoothness, brightness and volume to hair and makes styling easier.



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USE AND DOSAGE

The use of CONDITIONING, RESTORATIVE AND SOFTENING COMPLEX by BIOGRÜNDL, S.L., is suitable in treating, conditioner or frequent use shampoos; in masks and balsams; to be added to dyes, for better fixation and durability; also in treating bubble bath.

If turbidity is observed, it is advisable to previously dissolve the product in a portion of the water provided to manufacture the final product and filter after 12-24 hours.

The recommended concentrations of use are between 2% and 10%. For very special effects the dosage can raise up to 15%.

PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear or slightly opalescent liquid.

Colour: Characteristic (yellowish to deep brown).

Odour: Characteristic.

Direct pH value: 4,5 - 6,5 (20°C approx.).

Specific gravity: 1,000 - 1,300 g/cm³ (20°C approx.).

Solubility in water: Fully soluble (20°C approx.).

Solubility in other solvents: Insoluble in organic solvents and lipids. Soluble in surfactants, hydroalcoholic, hydroglyceric and hydroglycolic mixtures.

Heavy metals: No more than 5 mg/Kg.

Sulfated ash: No more than 0,01%.

Chlorides: No more than 0,007%.

Sulfates: No more than 0,002%.

Other information: None.

Total aerobics: Max. 300 microorganisms / gram.

Fungi and yeasts: Max. 200 microorganisms / gram.

Pathogens: Total absence in 1 gram.



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DERMATOLOGY INNOCUOUSNESS

It was performed by the patch test (Patch test) on 10 volunteers. To this purpose, 15% CONDITIONING, RESTORATIVE AND SOFTENING COMPLEX by BIOGRÜNDL, S.L., was added to an O/W emulsion; 0,5g. of this emulsion was poured over the patch and attached on the forearm. It is thus maintained for 24, 48 and 72 hours, after which, the given reaction was evaluated, according to the following table of values:

1. No erythema.
2. Slight erythema.
3. Well defined erythema.
4. Severe erythema.

The result was absence of erythema on the 10 volunteers.

On the recommended concentrations, the product is skin innocuous.

STORAGE CONDITIONS

It is very important to keep the product in well closed containers, away from direct sunlight at temperatures not over 15°C. In case of not having refrigerators, store the product in the coolest and free from artificial light area.

INCI DENOMINATION

AQUA, GLYCERIN, HYDROLYZED WHEAT PROTEIN, CETRIMONIUM CHLORIDE, BETAINE, HYDROLYZED KERATIN, COCO-GLUCOSIDE, COCOGLYCERIDES, POTASSIUM SORBATE.



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EFFECTIVENESS TESTS

Assay: Double blind spot trial and subsequent cosmetic evaluation.

Assayed parameters: Hair conditioning action.

N (volunteers): 30 (19 ♀ and 11 ♂).

Age (volunteers): 19 - 51 years old.

Left side part to be treated:

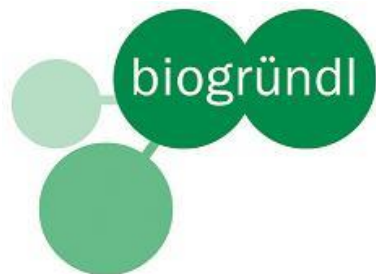
Placebo, 30 volunteers, suitable cosmetic base.

Right side part to be treated:

CONDITIONING, RESTORATIVE AND SOFTENING COMPLEX 2%, 15 volunteers, suitable cosmetic base.

Right side part to be treated:

CONDITIONING, RESTORATIVE AND SOFTENING COMPLEX 5%, 15 volunteers, suitable cosmetic base.



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Assayed parameters:

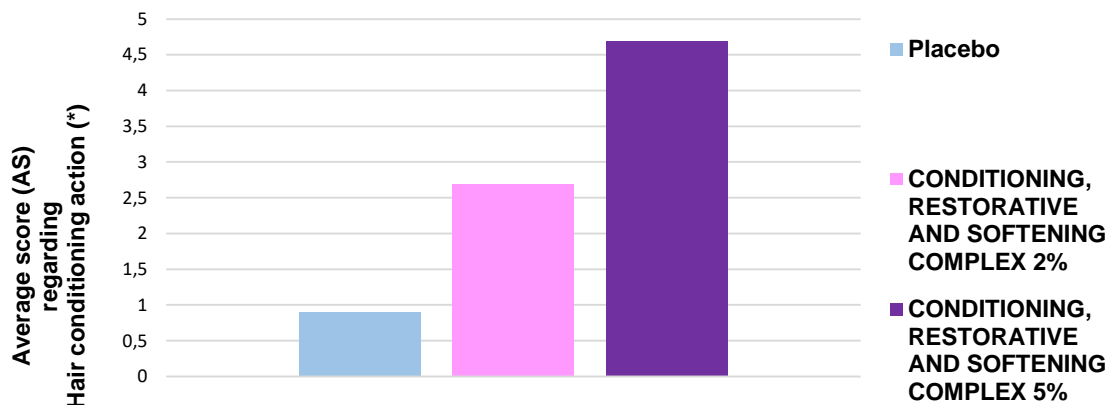
	Assay	N (volunteers)	Age (volunteers)	Placebo	CONDITIONING, RESTORATIVE AND SOFTENING COMPLEX 2%	CONDITIONING, RESTORATIVE AND SOFTENING COMPLEX 5%	Assay performed (Days)	Results measured (Days)
Hair conditioning action	Double blind spot trial and subsequent cosmetic evaluation.	N = 30 19 ♀ 11 ♂	19 - 51	Left side part	Right side part 15 volunteers.	Right side part. 15 volunteers.	D = 10	D' = 1



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HAIR CONDITION EVALUATION AFTER 30 DAYS



(*) Hair conditioning action was determined by direct and augmented observation of smoothers, volume and brightness from volunteers hair.

Total number of days in which the assay was performed (treatment was applied):
D = 10 days (every three days during the effectiveness test).

Total number of days in which the results were measured:
D' = 1 day (effectiveness test last day).

Average score:

Worst result: Zero limit value is assigned.

Best result: Five limit value is assigned.

Score is assigned to obtained results between the two limit values.

Average computation for each obtained results group is done:

Placebo, 2% CONDITIONING, RESTORATIVE AND SOFTENING COMPLEX by BIOGRÜNDL, S.L., 5% CONDITIONING, RESTORATIVE AND SOFTENING COMPLEX by BIOGRÜNDL, S.L.

Results meaning:

AS rank between 0 – 1: No significant changes.

AS rank between 1 – 2: Slight improvement regarding placebo.

AS rank between 2 – 3: Appreciable improvement regarding placebo.

AS rank between 3 – 4: Great improvement regarding placebo.

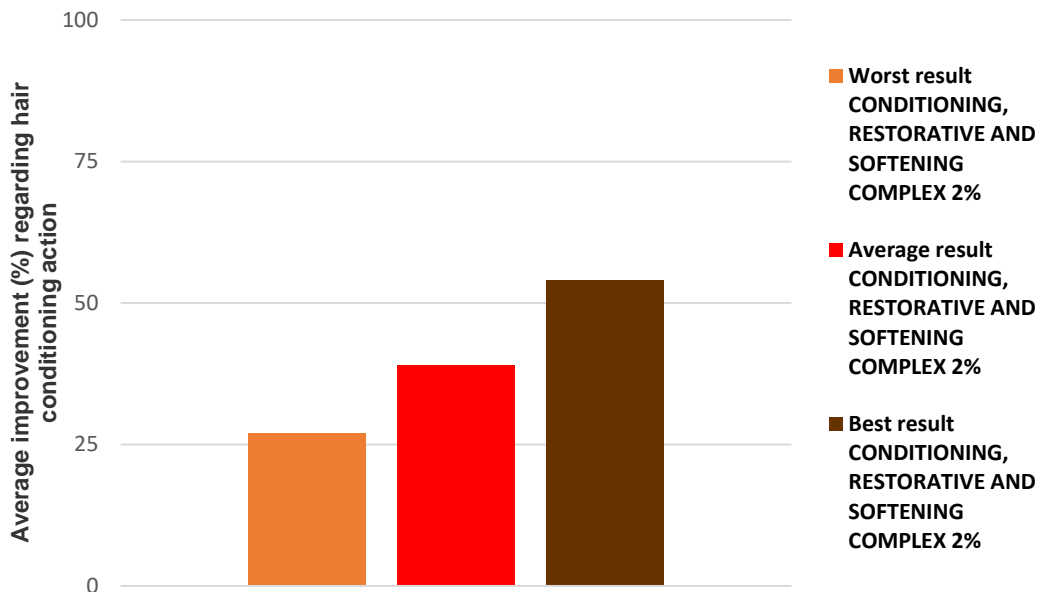
AS rank between 4 – 5: Excellent cosmetic result.



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CONDITIONING, RESTORATIVE AND SOFTENING COMPLEX 2%



Results:

Worst result CONDITIONING, RESTORATIVE AND SOFTENING COMPLEX 2%: 27%.

Average result CONDITIONING, RESTORATIVE AND SOFTENING COMPLEX 2%: 39%.

Best result CONDITIONING, RESTORATIVE AND SOFTENING COMPLEX 2%: 54%.

Results meaning:

AI rank between < 20%: No significant changes.

AI rank between 21 – 40%: Slight improvement regarding placebo.

AI rank between 41 – 60%: Appreciable improvement regarding placebo.

AI rank between 61 – 80%: Great improvement regarding placebo.

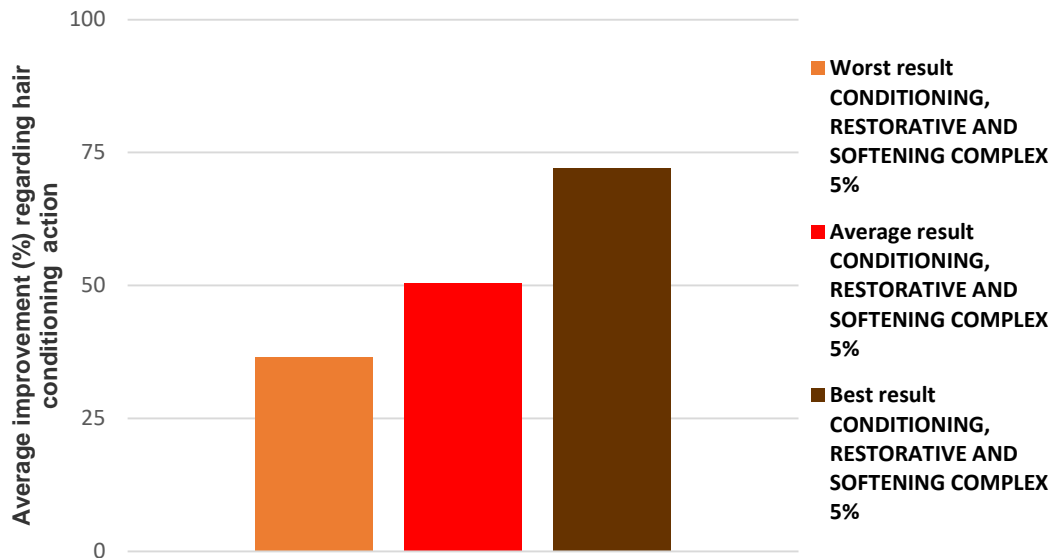
AI rank between > 81%: Excellent cosmetic result.



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CONDITIONING, RESTORATIVE AND SOFTENING COMPLEX 5%



Results:

Worst result CONDITIONING, RESTORATIVE AND SOFTENING COMPLEX 5%: **36,5%**.

Average result CONDITIONING, RESTORATIVE AND SOFTENING COMPLEX 5%: **50,5%**.

Best result CONDITIONING, RESTORATIVE AND SOFTENING COMPLEX 5%: **72%**.

Results meaning:

AI rank between < 20%: No significant changes.

AI rank between 21 – 40%: Slight improvement regarding placebo.

AI rank between 41 – 60%: Appreciable improvement regarding placebo.

AI rank between 61 – 80%: Great improvement regarding placebo.

AI rank between > 81%: Excellent cosmetic result.