

TECHNICAL DATA SHEET

ARNICA EXTRACT / AEC / HGL / CA20 /



Trade Name: ARNICA EXTRACT / AEC / HGL / CA20 /

Product Code: CEARAHGLC20.

INCI Name: AQUA, GLYCERIN, ARNICA MONTANA EXTRACT, POTASSIUM SORBATE, SODIUM BENZOATE.

INCI Status: Conforms.

REACH Status: Low Volume Exemption.

CAS Number: 7732-18-5; 56-81-5; 68990-11-4; 24634-61-5/ 590-00-1; 532-32-1.

EC Number: 231-791-2; 200-289-5; 273-579-2; 246-376-1; 208-534-8.

Origin: GLYCERIN: Vegetable origin.

ARNICA MONTANA EXTRACT: Vegetable origin.



POTASSIUM SORBATE: Synthetic origin.

SODIUM BENZOATE: 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, Sodium Benzoate. 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: 1,050 - 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: Sport body creams. Hair treatments.

Properties: Stimulating, antiedema, antieccematose, revulsive, antiseptic, vulnerary and hyperemiant.

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.

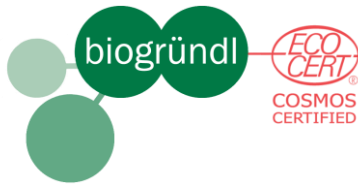
- Fitocosméticos ALVAREZ CRUZ i BAGUE SERRANO.

- 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

Arnica (*Arnica montana* L.) is an aromatic perennial herb, lanceolate leaves, belonging to the Asteraceae family.

ARNICA EXTRACT by BIOGRÜNDL, S.L., is obtained from flowers from ecological agriculture plant, roots and rhizomes. Containing as main active ingredients: fatty acids, paraffinic and terpenic hydrocarbons, a bitter substance called arnicine, arnifoline which is a sesquiterpenic lactone, polyphenolic acids: caffeic and chlorogenic acids, tannins, phytosterols, flavonoids and carotenoids.

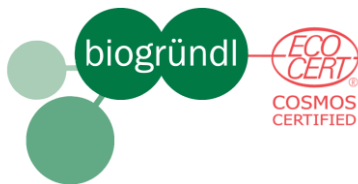
USE AND DOSAGE

The incorporation of arnica extract in cosmetics is justified by its stimulating, antiedema, anti-eczematose, revulsive, antiseptic, vulnerary and hyperemiant properties.

Its use is suggested to treat bruises and wounds in body creams. Also, in sport massages and functional recovery creams. In treatments for feet and legs. Very interesting, also, its application in preparations for scalp and hair, in anti-dandruff and stimulant shampoos and lotions

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%.



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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: 1,050 - 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.

DERMATOLOGY INNOCUOUSNESS

It was performed by the patch test (Patch test) on 10 volunteers. To this purpose, 15% ARNICA EXTRACT 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.

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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, ARNICA MONTANA EXTRACT, POTASSIUM SORBATE, SODIUM BENZOATE.

EFFECTIVENESS TESTS

Assay: Double blind spot trial and subsequent cosmetic evaluation.

Assayed parameters: Anti-eczematous action.

N (volunteers): 30 (18 ♀ and 12 ♂).

Age (volunteers): 25 – 73 years old.

Left side part to be treated:

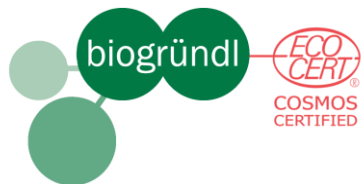
Placebo, 30 volunteers, suitable cosmetic base.

Right side part to be treated:

ARNICA EXTRACT 2%, 15 volunteers, suitable cosmetic base.

Right side part to be treated:

ARNICA EXTRACT 5%, 15 volunteers, suitable cosmetic base.



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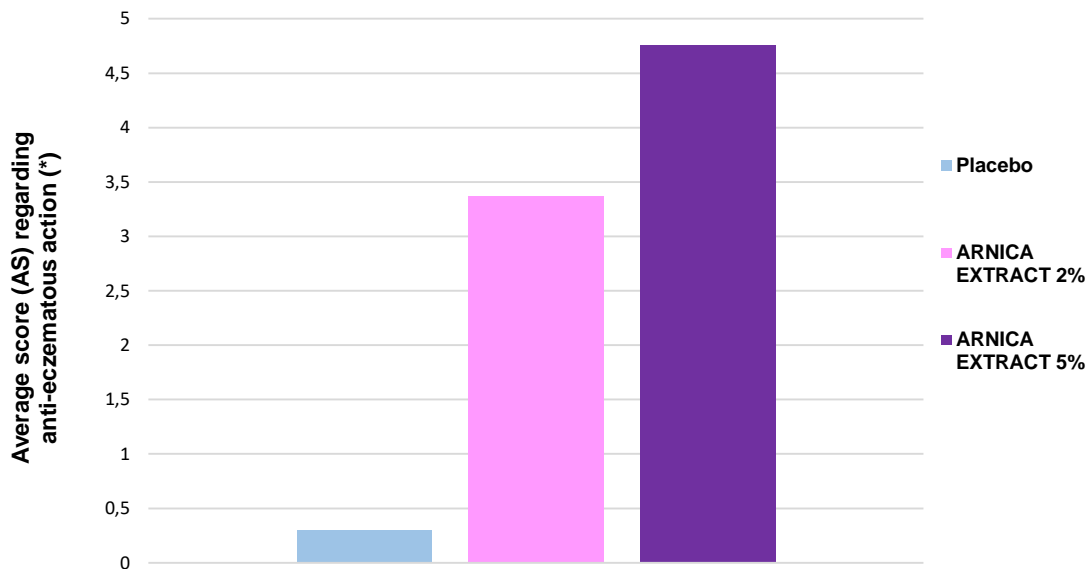
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Assayed parameters:

	Assay	N (volunteers)	Age (volunteers)	Placebo	ARNICA EXTRACT 2%	ARNICA EXTRACT 5%	Assay performed (Days)	Results measured (Days)
Anti-eczematous action	Double blind spot trial and subsequent cosmetic evaluation.	N = 30 18 ♀ 12 ♂	25 – 73	Left side part	Right side part 15 volunteers.	Right side part. 15 volunteers.	D = 30	D' = 1

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SKIN CONDITION EVALUATION AFTER 30 DAYS



(*) Anti-eczematous action was determined by valuation of erythem decrease from volunteers treated zone.

Total number of days in which the assay was performed (treatment was applied):
 D = 30 days (every day 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% ARNICA EXTRACT by BIOGRÜNDL, S.L., 5% ARNICA EXTRACT by BIOGRÜNDL, S.L..

Results meaning:

AS rank between 0 – 1: No significant changes.

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

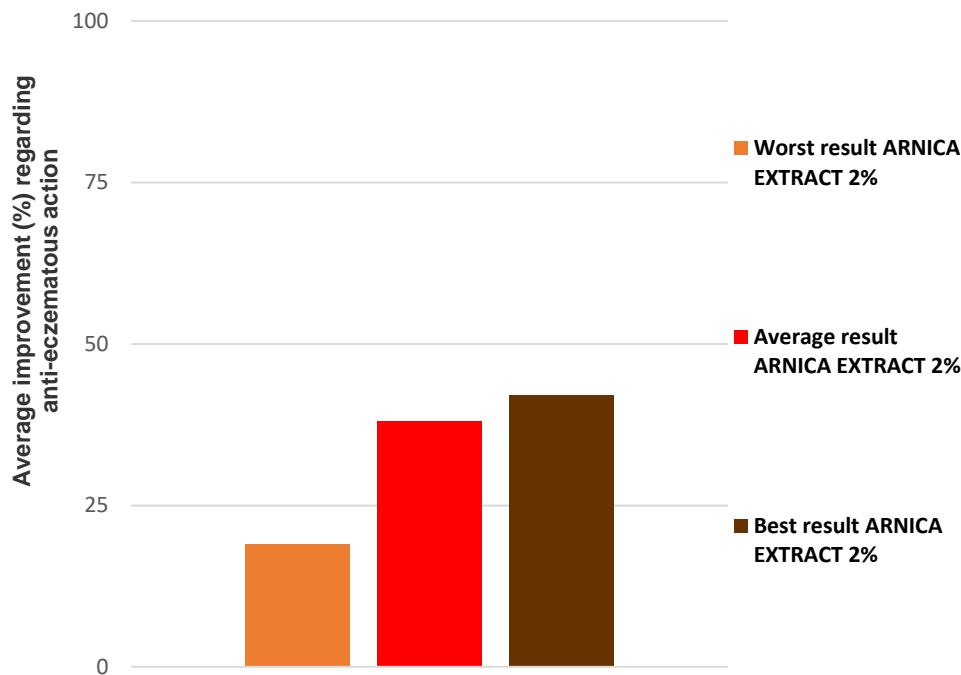
AS rank between 2 – 3: Appreciable improvement regarding placebo.

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

AS rank between 4 – 5: Excellent cosmetic result.

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ARNICA EXTRACT 2%



Results:

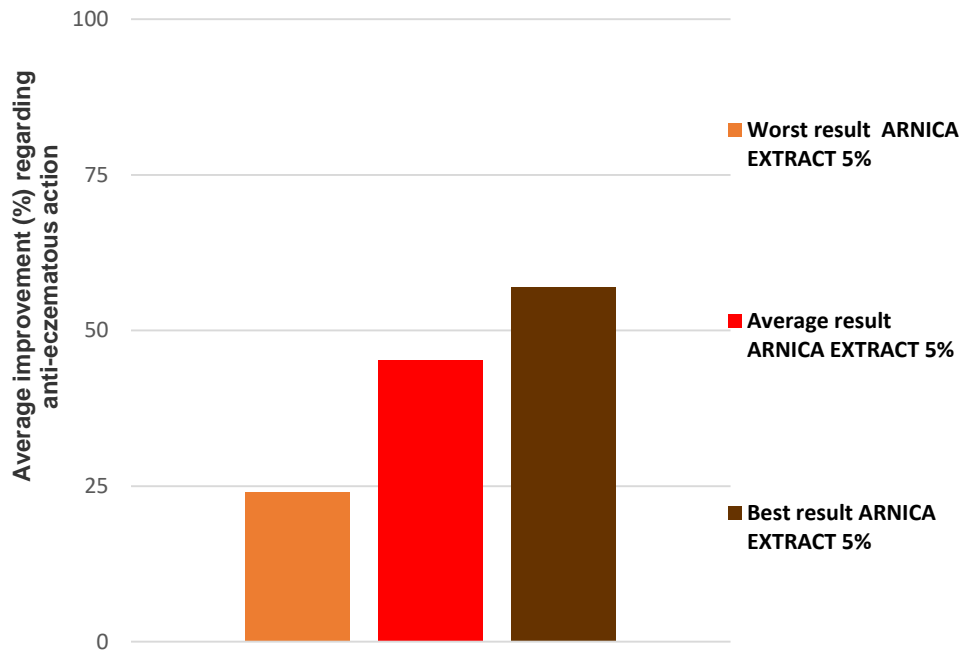
Worst result ARNICA EXTRACT 2%: 19%.
Average result ARNICA EXTRACT 2%: 38,1%.
Best result ARNICA EXTRACT 2%: 42%.

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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ARNICA EXTRACT 5%



Results:

Worst result ARNICA EXTRACT 5%: 24%.
 Average result ARNICA EXTRACT 5%: 45,3%.
 Best result ARNICA EXTRACT 5%: 57%.

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.