

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

COLD EFFECT RELAX CONCENTRATE / A / HA / CA11 /



Trade Name: COLD EFFECT RELAX CONCENTRATE / A / HA / CA11 /

Product Code: GREFAHACA11.

INCI Name: AQUA, ISOPROPYL ALCOHOL, ROSMARINUS OFFICINALIS EXTRACT, EUCALYPTUS GLOBULUS LEAF EXTRACT, CAMPHOR, MENTHOL, PEG-40 HYDROGENATED CASTOR OIL, POTASSIUM SORBATE.

INCI Status: Conforms.

REACH Status: Low Volume Exemption.

CAS Number: 7732-18-5; 67-63-0; 84604-14-8; 84625-32-1; 464-49-3 / 76-22-2; 1490-04-6 / 2216-51-5 / 89-78-1 / 15356-70-4; 61788-85-0; 24634-61-5 / 590-00-1.

EC Number: 231-791-2; 200-661-7; 283-291-9; 283-406-2; 207-355-2 / 200-945-0; 216-074-4 / 218-690-9 / 201-939-0 / 239-388-3; Not available; 246-376-1.

Origin: **ROSMARINUS OFFICINALIS EXTRACT, EUCALYPTUS GLOBULUS LEAF EXTRACT,**
MENTHOL: Vegetable origin.

ISOPROPYL ALCOHOL, CAMPHOR, POTASSIUM SORBATE: Synthetic origin.

PEG-40 HYDROGENATED CASTOR OIL: Synthetic-vegetable 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 isopropyl alcohol.

Appearance: Clear or slightly opalescent liquid.

Colour: Characteristic (yellowish to deep brown).

Odour: Characteristic.

Specific gravity: 0,900 – 0,980 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: Relieves muscle tension and increases muscle elasticity. Defatigues muscles after efforts. Helps to remove body fatigue and muscle aches.

Properties: Muscle recovery and tissue strengthener.

Industrial packing: 1Kg., 5Kg., 25Kg., 200Kg.

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.

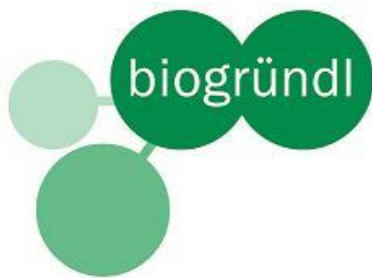
- Fitocosméticos ALVAREZ CRUZ i BAGUE SERRANO.

- 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

Both home treatments and professional treatments, many times it is necessary to alleviate discomfort by soothing, refreshing, calming or defatigue treatments. After long investigation, conducted with the help of specialists in Sports Medicine, BIOGRÜNDL presents COLD EFFECT RELAX CONCENTRATE by BIOGRÜNDL, S.L., easy incorporation into practically all common excipients.

Cosmetic application of COLD EFFECT RELAX CONCENTRATE by BIOGRÜNDL, S.L., is justified by the following properties and characteristics:

- Relieves muscle tension and increases muscle elasticity.
- Defatigues muscles after efforts.
- Strengthens tissues because of its cold effect action.
- Increases the effectiveness of massages but, specially, for those of functional recovery.
- Helps to remove body fatigue and muscle aches.
- Contributes aromatherapic effect when added to bath water, footbaths or sitz baths.
- Strengthens tissues due to its remarkable cryogenic power, specially if applied by the technique of cold bandages.
- Retains softness in body surface, maintains skin smoothness and free of imperfections.
- Very usefull its incorporation in anti-cellulitic and body slimming products.



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USE AND DOSAGE

COLD EFFECT RELAX CONCENTRATE by BIOGRÜNDL, S.L., can be easily incorporated into lotions, gels, creams or cremigels to obtain the effects above described.

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: 0,900 – 0,980 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%.

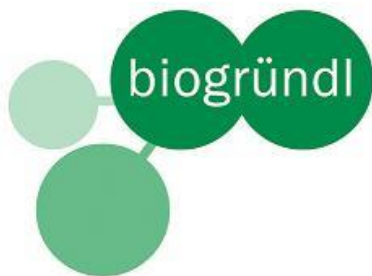
Sulfates: No more than 0,002%.

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% COLD EFFECT RELAX CONCENTRATE 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.

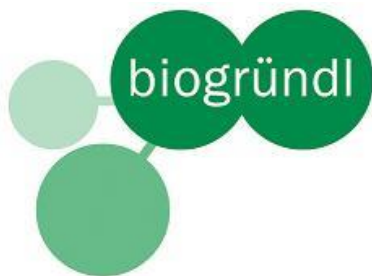
On the recommended concentrations, the product is skin innocuous.

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, ISOPROPYL ALCOHOL, ROSMARINUS OFFICINALIS EXTRACT,
EUCALYPTUS GLOBULUS LEAF EXTRACT, CAMPHOR, MENTHOL, PEG-40
HYDROGENATED CASTOR OIL, POTASSIUM SORBATE.



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EFFECTIVENESS TESTS

Assay: Double blind spot trial and subsequent cosmetic evaluation.

Assayed parameters: Cold effect action.

N (volunteers): 30 (15 ♀ and 15 ♂).

Age (volunteers): 21 - 43 years old.

Left side part to be treated:

Placebo, 30 volunteers, suitable cosmetic base.

Right side part to be treated:

COLD EFFECT RELAX CONCENTRATE 2%, 15 volunteers, suitable cosmetic base.

Right side part to be treated:

COLD EFFECT RELAX CONCENTRATE 5%, 15 volunteers, suitable cosmetic base.

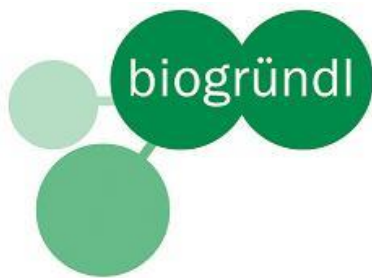


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Assayed parameters:

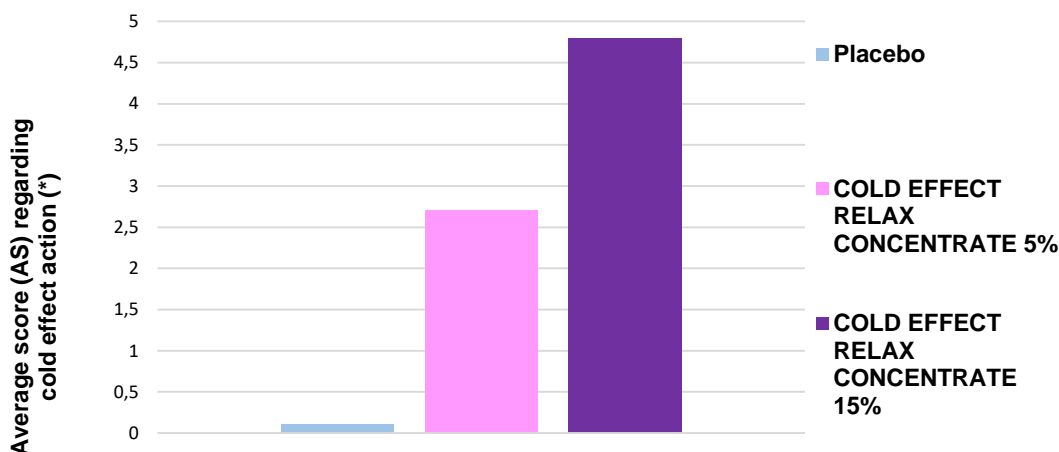
	Assay	N (volunteers)	Age (volunteers)	Placebo	COLD EFFECT RELAX CONCENTRATE 2%	COLD EFFECT RELAX CONCENTRATE 5%	Assay performed (Days)	Results measured (Days)
Cold effect action	Double blind spot trial and subsequent cosmetic evaluation.	N = 30 15 ♀ 15 ♂	21 - 43	Left side part	Right side part 15 volunteers.	Right side part. 15 volunteers.	D = 15	D' = 15



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SKIN CONDITION EVALUATION AFTER 30 DAYS



(*) Cold effect action was determined by subjective assessment of cold sensation increase in volunteers treated skin zone.

Total number of days in which the assay was performed (treatment was applied):
D = 15 days (every other day during the effectiveness test).

Total number of days in which the results were measured:
D' = 15 days (every other day during the effectiveness test).

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, 5% COLD EFFECT RELAX CONCENTRATE by BIOGRÜNDL, S.L.,
15% COLD EFFECT RELAX CONCENTRATE 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.

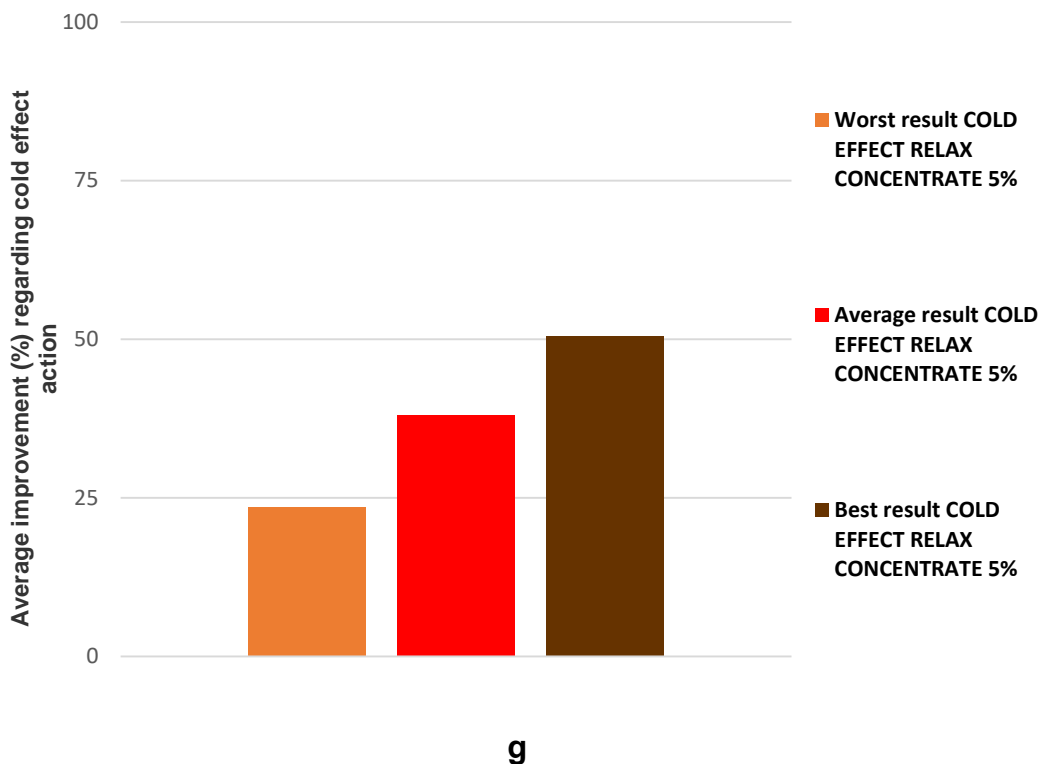
AS rank between 4 – 5: Excellent cosmetic result.



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COLD EFFECT RELAX CONCENTRATE 5%

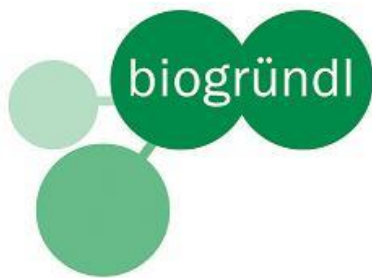


Results:

Worst result COLD EFFECT RELAX CONCENTRATE 5%: 23,5%.
Average result COLD EFFECT RELAX CONCENTRATE 5%: 38%.
Best result COLD EFFECT RELAX CONCENTRATE 5%: 50,5%.

Results meaning:

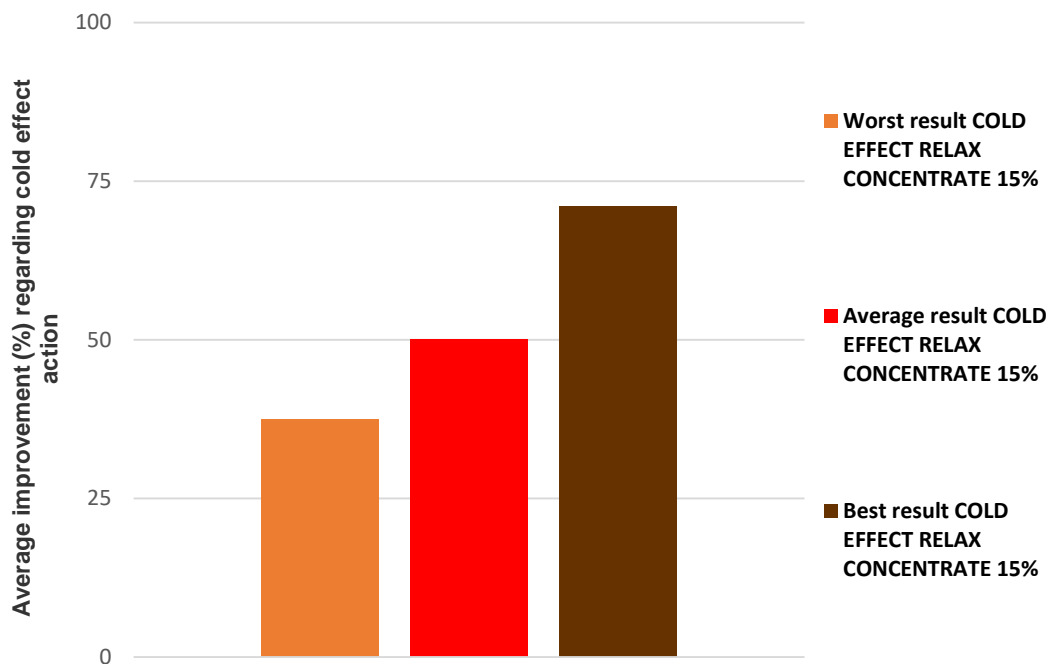
AI rank between < 20%: No significant changes.
AI rank between 21 – 40%: Slight improvement regarding placebo.
AI rank between 41 – 60%: Appreciable improvement regarding placebo.
AI rank between 61 – 80%: Great improvement regarding placebo.
AI rank between > 81%: Excellent cosmetic result.



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COLD EFFECT RELAX CONCENTRATE 15%



Results:

Worst result COLD EFFECT RELAX CONCENTRATE 15%: **37,5%**.
Average result COLD EFFECT RELAX CONCENTRATE 15%: **50%**.
Best result COLD EFFECT RELAX CONCENTRATE 15%: **71%**.

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.