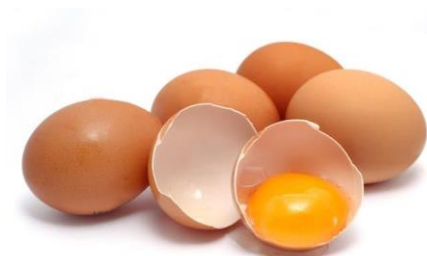




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TECHNICAL DATA SHEET

OVUM-EMULSIFIER O/W / A / B /



Trade Name: OVUM-EMULSIFIER O/W / A / B /.

Product Code: OVUMEMUOWAB.

INCI Name: DECYL OLEATE, OVUM OIL, CASTOR OIL POLYGLYCERYL-6 ESTERS, PEG-40 HYDROGENATED CASTOR OIL, BHT.

INCI Status: Conforms.

REACH Status: Low Volume Exemption.

CAS Number: 3687-46-5; 8001-17-0; 85711-62-2; 61788-85-0; 128-37-0.

EC Number: 222-981-6; 232-271-8; 288-323-5; Not available; 204-881-4.

Origin: **DECYL OLEATE, CASTOR OIL POLYGLYCERYL-6 ESTERS:** Natural origin.

OVUM OIL: Animal origin.

PEG-40 HYDROGENATED CASTOR OIL: Synthetic-vegetable origin.

BHT: 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: None. Preservative Free. / Antioxidants: BHT. / Other additives: None.

Appearance: Clear or slightly opalescent liquid.

Colour: Characteristic (yellowish to deep brown).

Odour: Characteristic.

Specific gravity: 0.820 – 0.890 g/cm³ (20°C approx.).

Soluble/ Miscible: Organic solvents and lipids.

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: Facial, body and hair treatment preparations.

Properties: Re-greasing, emollient and protector.

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 25°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

Egg yolk stores a wide range of bio-active materials, possessing great plastic and energetic value, that are essential to embryo growth during the incubation period. Among these active components, special mention must be made of the high proportion of lipids, lethicin, glycerides, cholesterol, carotenes, proteins, vitamins (A, D and E), together with mineral salts.

USE AND DOSAGE

BIOGRÜNDL, S.L. presents OVUM-EMULSIFIER O/W, obtained by means of a special procedure that extracts all of its active liposoluble components, with emphasis on lipids, lipoproteins and liposoluble vitamins.

The extraction procedure is at low temperature, always below 40°C, employing decyl oleate as the solvent, enriched with castor oil, producing a very active media that drags most of the lipid components from the egg yolk.

Its most characteristic application is as a supplementary emulsion in O/W emulsions, providing them with a high level of emolience, excellent resistance to oxidation and enhanced stability. It can, also, be employed to relubricate the skin and as an emollient and protector in facial, body and hair preparations. Because of its content in vitamins A and E, OVUM-EMULSIFIER O/W by BIOGRÜNDL, S.L. possesses excellent protective capacity against oxidising free radicals.

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.

Specific gravity: 0.820 – 0.890 (20°C approx.).

Solubility in water: Fully insoluble.

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

Acid value: Less than 5,0 mg.KOH/g.

Saponification value: 180 to 195 mg.KOH/g.

Iodine value: 110 to 125 g.I₂/100g.

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 1g.

DERMATOLOGY INNOCUOUSNESS

It was performed by the patch test (Patch test) on 10 volunteers. To this purpose, 15% OVUM-EMULSIFIER O/W 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 and at temperatures not over 25°C. In case of not having refrigerators, store the product in the coolest and free from artificial light area.

INCI DENOMINATION

DECYL OLEATE, OVUM OIL, CASTOR OIL POLYGLYCERYL-6 ESTERS, PEG-40 HYDROGENATED CASTOR OIL, BHT.

EFFECTIVENESS TESTS

Assay: Double blind spot trial and subsequent cosmetic evaluation.

Assayed parameters: Emollient action.

N (volunteers): 30 (15 ♀ and 15 ♂).

Age (volunteers): 25 - 61 years old.

Left side part to be treated:

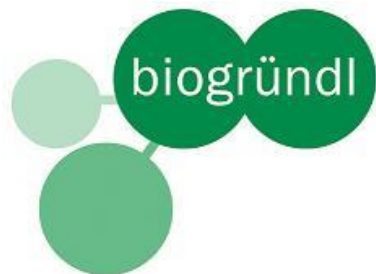
Placebo, 30 volunteers, suitable cosmetic base.

Right side part to be treated:

OVUM-EMULSIFIER O/W 2%, 15 volunteers, suitable cosmetic base.

Right side part to be treated:

OVUM-EMULSIFIER O/W 5%, 15 volunteers, suitable cosmetic base.



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Assayed parameter:

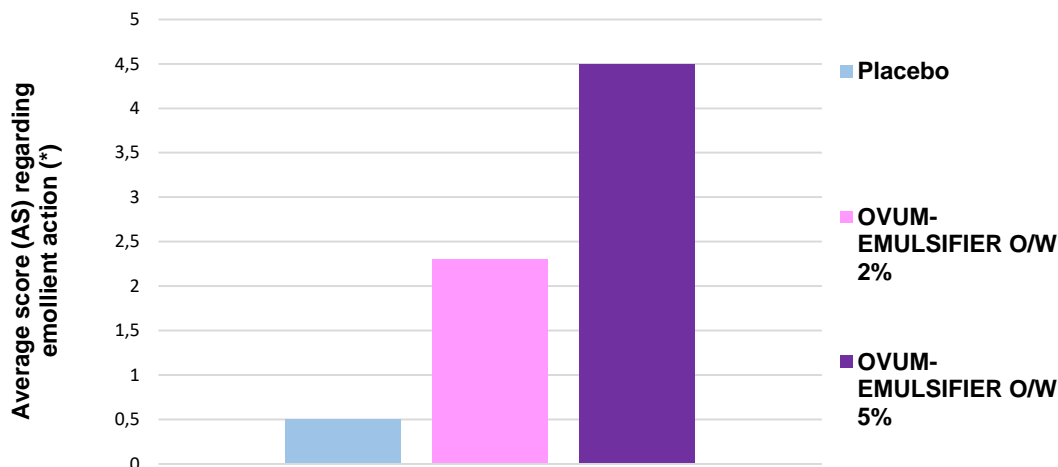
	Assay	N (volunteers)	Age (volunteers)	Placebo	OVUM-EMULSIFIER O/W 2%	OVUM-EMULSIFIER O/W 5%	Assay performed (Days)	Results measured (Days)
Emollient action	Double blind spot trial and subsequent cosmetic evaluation.	N = 30 15 ♀ 15 ♂	25 - 61	Left side part	Right side part 15 volunteers.	Right side part. 15 volunteers.	D = 30	D' = 1



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SKIN CONDITION EVALUATION AFTER 30 DAYS



(*) Emollient action was determined by softening degree of calluses on volunteers treated body 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% OVUM-EMULSIFIER O/W by BIOGRÜNDL, S.L., 5% OVUM-EMULSIFIER O/W by BIOGRÜNDL, S.L..

Results meaning:

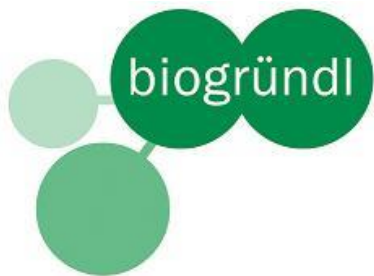
AS rank between 0 – 1: No significant changes.

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.

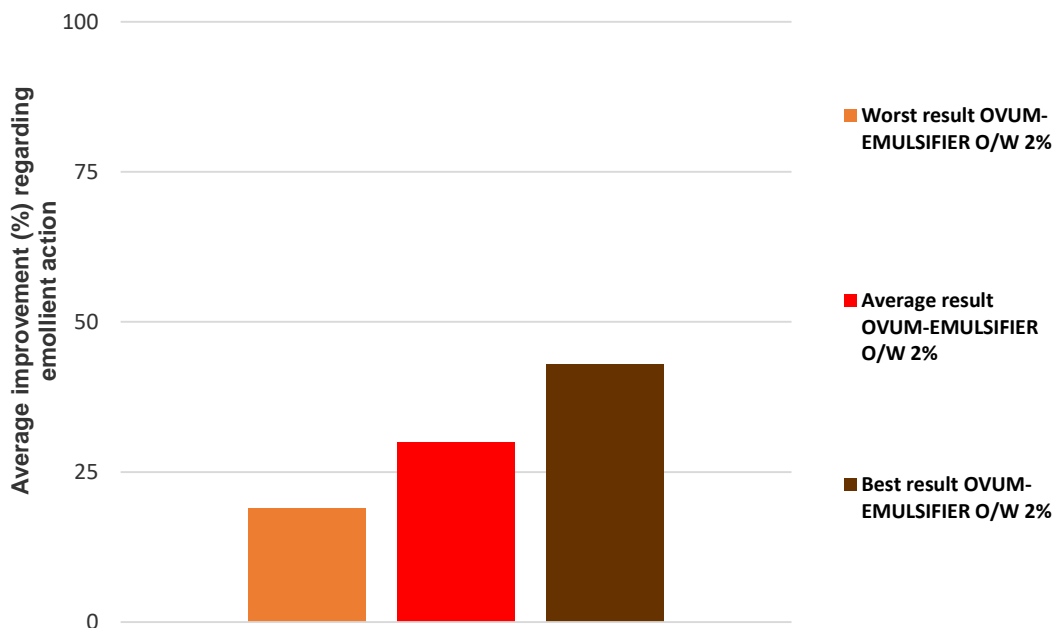
AS rank between 4 – 5: Excellent cosmetic result.



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OVUM-EMULSIFIER O/W 2%

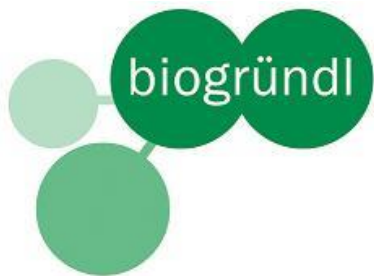


Results:

Worst result OVUM-EMULSIFIER O/W 2%: 19%.
Average result OVUM-EMULSIFIER O/W 2%: 30%.
Best result OVUM-EMULSIFIER O/W 2%: 43%.

Results meaning:

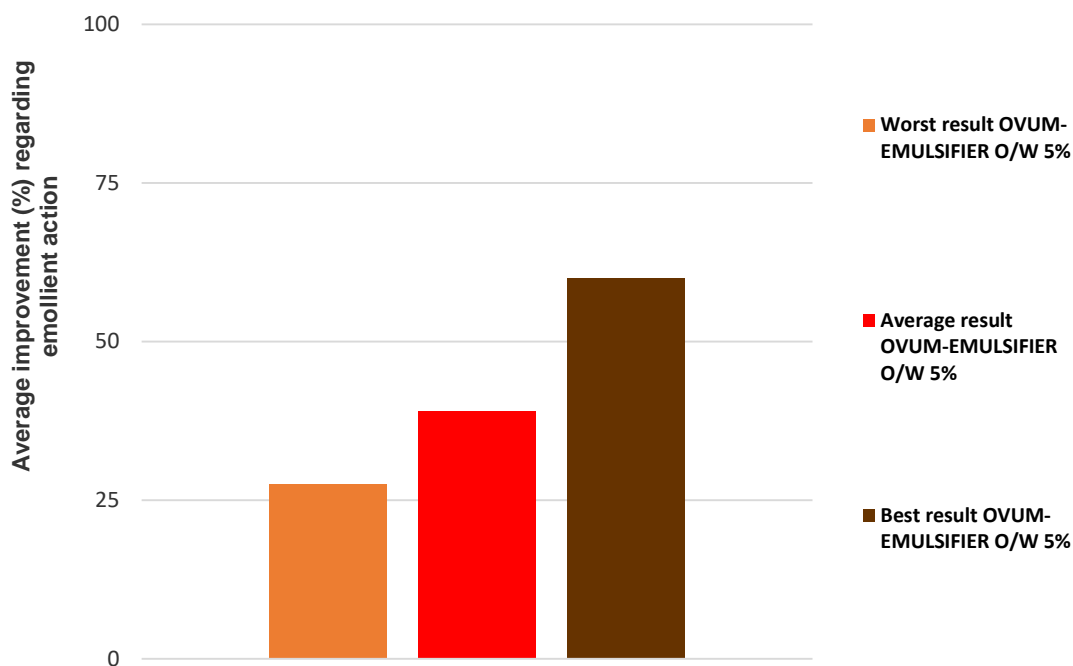
AI rank between < 20%: No significant changes.
AI rank between 21 – 40%: Slight improvement regarding placebo.
AI rank between 41 – 60%: Appreciable improvement regarding placebo.
AI rank between 61 – 80%: Great improvement regarding placebo.
AI rank between > 81%: Excellent cosmetic result.



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OVUM-EMULSIFIER O/W 5%



Results:

Worst result OVUM-EMULSIFIER O/W 5%: **27,5%**.
Average result OVUM-EMULSIFIER O/W 5%: **39%**.
Best result OVUM-EMULSIFIER O/W 5%: **60%**.

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.