

BIOGRÜNDL, S.L.  
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## TECHNICAL DATA SHEET

# GRÜNDELGABA COMPLEX / A / HG / CA11 /



**Trade Name:** GRÜNDELGABA COMPLEX / A / HG / CA11 /

**Product Code:** CGGAHGACA11.

**INCI Name:** AQUA, PROPYLENE GLYCOL, GLYCINE SOJA GERM EXTRACT, OLEA EUROPAEA LEAF EXTRACT, PISUM SATIVUM EXTRACT, VICIA FABA SEED EXTRACT, ISOPROPYL ALCOHOL, AMINOBUTYRIC ACID, PEG-40 HYDROGENATED CASTOR OIL, POTASSIUM SORBATE, TOCOPHERYL ACETATE, ASCORBYL PALMITATE, RETINYL PALMITATE, NIACINAMIDE, PANTHENOL, RIBOFLAVIN, INOSITOL, BIOTIN, PYRIDOXINE HCL, THIAMINE HCL, CYANOCOBALAMIN, CALCIUM SULFATE, MAGNESIUM SULFATE, COPPER SULFATE, POTASSIUM SULFATE, ZINC SULFATE, MANGANESE SULFATE, FERRIC SULFATE.

**INCI Status:** Conforms.

**REACH Status:** Low Volume Exemption.

**CAS Number:** 7732-18-5; 57-55-6; 84776-91-0; 8001-25-0 / 84012-27-1; 90082-41-0; 89958-06-5; 67-63-0; 56-12-2; 61788-85-0; 24634-61-5 / 590-00-1; 7695-91-2 / 58-95-7; 137-66-6; 79-81-2; 98-92-0; 81-13-0 / 16485-10-2; 83-88-5; 87-89-8; 58-85-5; 58-56-0 / 12001-77-3; 67-03-8; 68-19-9; 7778-18-9; 7487-88-9; 7758-98-7; 7778-80-5; 7446-19-7 / 7733-02-0 / 7746-20-0; 7785-87-7 / 10124-55-7; 10028-22-5.

**EC Number:** 231-791-2; 200-338-0; 921-078-0; 232-277-0; 290-130-6; 289-628-6; 200-661-7; 200-258-6; Not available; 246-376-1; 231-710-0 / 200-405-4; 205-305-4; 201-228-5; 202-713-4; 201-327-3 / 240-540-6; 201-507-1; 201-781-2; 200-399-3; 200-386-2; 200-641-8; 200-680-0; 231-900-3; 231-298-2; 231-847-6; 231-915-5; 231-793-3; 232-089-9 / 233-342-6; 233-072-9.

**Origin:** PROPYLENE GLYCOL: Petrochemical origin.

**GLYCINE SOJA GERM EXTRACT, OLEA EUROPAEA LEAF EXTRACT, PISUM SATIVUM EXTRACT, VICIA FABA SEED EXTRACT, INOSITOL:** Vegetable origin.

**POTASSIUM SORBATE, TOCOPHERYL ACETATE, ASCORBYL PALMITATE, RETINYL PALMITATE, NIACINAMIDE, PANTHENOL, BIOTIN, PYRIDOXINE HCL, THIAMINE HCL, COPPER SULFATE, POTASSIUM SULFATE, ZINC SULFATE, MANGANESE SULFATE, FERRIC SULFATE, ISOPROPYL ALCOHOL:** Synthetic origin.

**AMINOBUTYRIC ACID, RIBOFLAVIN, CYANOCOBALAMIN:** Fermentation.

**CALCIUM SULFATE:** Mineral origin.

**MAGNESIUM SULFATE:** Inorganic origin.

**PEG-40 HYDROGENATED CASTOR:** 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 propylene glycol.

**Appearance:** Clear or slightly opalescent liquid.

**Colour:** Characteristic (yellowish to deep brown).

**Odour:** Characteristic.

**Specific gravity:** 1,000 - 1,080 g/cm<sup>3</sup> (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.

**Suggested Use Levels:** 2,0 – 10,0%.

**Suggested Applications:** Immediate and lasting lifting effect. Revitalizing action in aging skin treatment.

**Properties:** Anti-wrinkle, restructuring, protective, revitalizing and regenerative.

**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

GRÜNDELGABA COMPLEX by BIOGRÜNDL, S.L. represents a radical breakthrough in ageing cosmetologic skin treatment.

GRÜNDELGABA COMPLEX by BIOGRÜNDL, S.L. can be incorporated into different bases (emulsion, lotion, gel and serum) to treat characteristic symptoms of skin aging, including wrinkles and expression lines, without having to undergo surgery.

GRÜNDELGABA COMPLEX by BIOGRÜNDL, S.L. contains more than twenty active substances of maximum effectiveness and, in addition, they have synergistic effect with each other, in other words, they enhance each other. All of them are from vegetable, mineral or synthetic origin. None of them from animal origin.

#### • GABA

It is a derivative of a gamma-aminoacid that, unlike conventional anti-wrinkle materials, does not act on the surface of wrinkles and expression lines, but relaxing the underlying musculature that form them.

GABA has been particularly effective in those parts of the face subjected to continuous stretches and twists, such as orbicular and perilabial areas.

GABA represents a harmless cosmetic alternative to Botox. Contrary to this, it does not apply injecting it, but only topically, incorporated into appropriate cosmetic basis.

#### • PHYTOESTROGENS

They are estrogenic hormones from vegetable origin, with similar effect on body to those caused by estrogens, without causing the unwanted and dangerous actions of these. In addition, by its special chemical structure, they can pass through cell membranes and act on the nucleus, protecting the skin cells, against disorders due to free radical or enzymes that degrade proteins of the protoplasm.

Contained phytohormones in GRÜNDELGABA COMPLEX by BIOGRÜNDL, S.L. are isoflavones extracted from germinated soybean seeds.



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### • VEGETABLE PROTEIN

Obtained from immature grains of three legumes: soybean, pea and bean.

They are extraordinarily rich in proteins, with similar composition to collagen and elastin; and antiproteases, these are enzymes that slow down destruction of proteins. Thus, very remarkable restructuring and reinforcing properties of skin are achieved, as well as, better protection against unfavourable external agents (UV, heat, cold, dryness).

### • VITAMIN COMPLEX

It contains the following eleven vitamins, A, B<sub>1</sub>, B<sub>2</sub>, B<sub>5</sub>, B<sub>6</sub>, B<sub>8</sub>, B<sub>12</sub>, C, E, H, PP, constituting a very complete and perfectly balanced mix in which are the most important vitamins for the skin. They have revitalizing, protective and regenerative action on skin.

### • TRACE ELEMENTS COMPLEX

Percolated of green clay and combined with soy proteins, in order to achieve deeper and quick absorption. It has an impact on general metabolism of the skin having anti-inflammatory and protective properties and increasing the immune response. Although the percolated process has many more trace elements, those who are in most are: calcium, magnesium, copper, zinc, potassium, iron and manganese.

### • OLEUROPEIN

It is a bitter heterosid, obtained from olive tree leaves. It causes a detectable peripheral vasodilatation, achieving greater blood flow to the skin tissue, resulting an increase in the skin metabolism, the renewal of the skin and some remarkable anti-aging effects.

GRÜNDELGABA COMPLEX by BIOGRÜNDL, S.L. is intended for immediate skin regeneration and, also, for prevention and treatment of skin aging, in a completely natural way and with verifiable effects from the first application, without having to undergo surgery or use toxin botulinum (Botox) injectables.



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### USE AND DOSAGE

The incorporation in cosmetics of GRÜNDELGABA COMPLEX by BIOGRÜNDL, S.L. is justified by its anti-wrinkle, restructuring, protective, revitalizing and regenerative properties.

GRÜNDELGABA COMPLEX by BIOGRÜNDL, S.L. causes an immediate and lasting lifting effect, with disappearance or attenuation of wrinkles and expression lines, as well as, revitalizing action in aging skin treatment.

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 - 1,080 g/cm<sup>3</sup> (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% GRÜNDELGABA 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, PROPYLENE GLYCOL, GLYCINE SOJA GERM EXTRACT, OLEA EUROPAEA LEAF EXTRACT, PISUM SATIVUM EXTRACT, VICIA FABA SEED EXTRACT, ISOPROPYL ALCOHOL, AMINOBUTYRIC ACID, PEG-40 HYDROGENATED CASTOR OIL, POTASSIUM SORBATE, TOCOPHERYL ACETATE, ASCORBYL PALMITATE, RETINYL PALMITATE, NIACINAMIDE, PANTHENOL, RIBOFLAVIN, INOSITOL, BIOTIN, PYRIDOXINE HCL, THIAMINE HCL, CYANOCOBALAMIN, CALCIUM SULFATE, MAGNESIUM SULFATE, COPPER SULFATE, POTASSIUM SULFATE, ZINC SULFATE, MANGANESE SULFATE, FERRIC SULFATE.

### **EFFECTIVENESS TEST**

**Assay:** Double blind spot trial and subsequent cosmetic evaluation.

**Assayed parameters:** Anti-wrinkle action.

**N (volunteers):** 30 (16 ♀ and 14 ♂).

**Age (volunteers):** 30 – 69 years old.

**Left side part to be treated:**

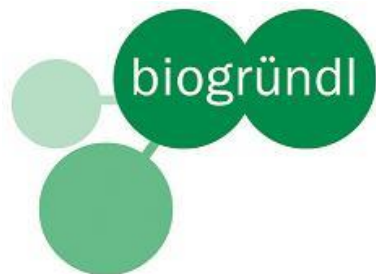
Placebo, 30 volunteers, suitable cosmetic base.

**Right side part to be treated:**

GRÜNDELGABA COMPLEX 2%, 15 volunteers, suitable cosmetic base.

**Right side part to be treated:**

GRÜNDELGABA COMPLEX 5%, 15 volunteers, suitable cosmetic base.



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### Assayed parameter:

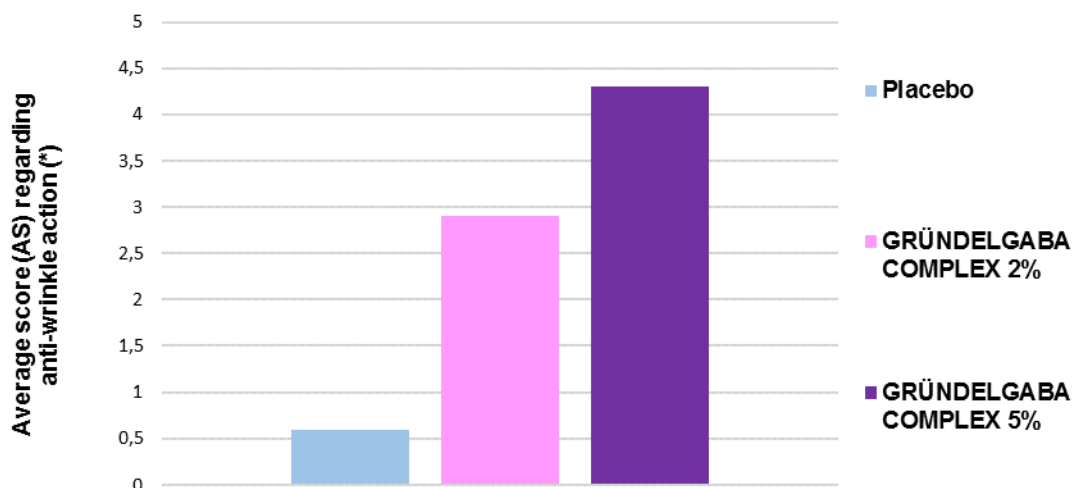
	Assay	N (volunteers)	Age (volunteers)	Placebo	GRÜNDELGABA COMPLEX 2%	GRÜNDELGABA COMPLEX 5%	Assay performed (Days)	Results measured (Days)
<b>Anti-wrinkle action</b>	Double blind spot trial and subsequent cosmetic evaluation.	N = 30 16 ♀ and 14 ♂	30 – 69	Left side part	Right side part 15 volunteers.	Right side part. 15 volunteers.	D = 30	D' = 1



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### SKIN CONDITION EVALUATION AFTER 30 DAYS



(\*) Anti-wrinkle action was determined by microscopic observation of depth and length of furrows, wrinkles and expression lines from volunteers.

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% GRÜNDELGABA COMPLEX by BIOGRÜNDL, S.L., 5% GRÜNDELGABA 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.

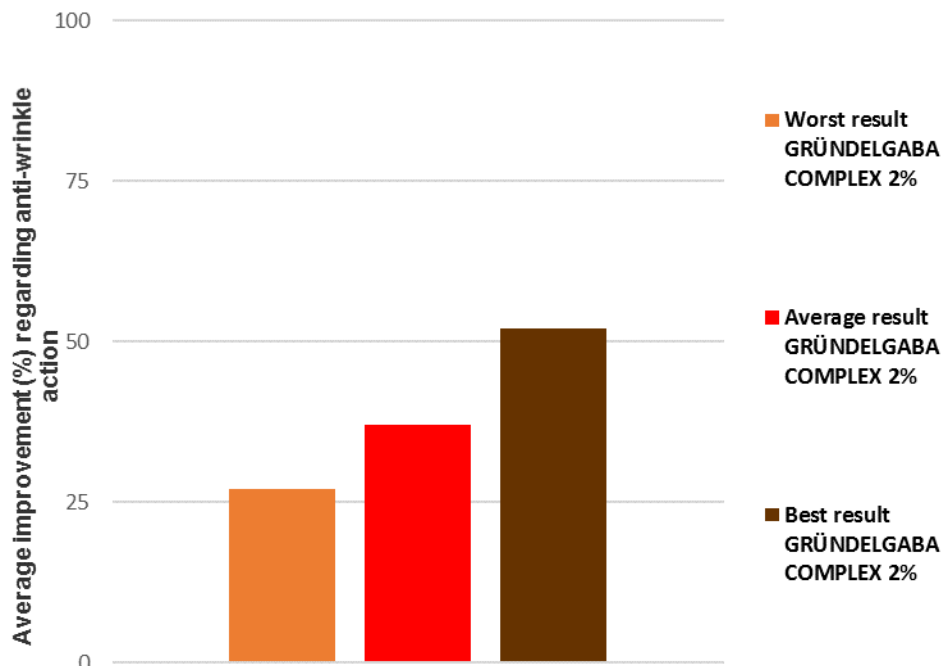
AS rank between 4 – 5: Excellent cosmetic result.



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### GRÜNDELGABA COMPLEX 2%



#### Results:

Worst result GRÜNDELGABA COMPLEX 2%: **27%**.

Average result GRÜNDELGABA COMPLEX 2%: **37%**.

Best result GRÜNDELGABA COMPLEX 2%: **52%**.

#### 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.

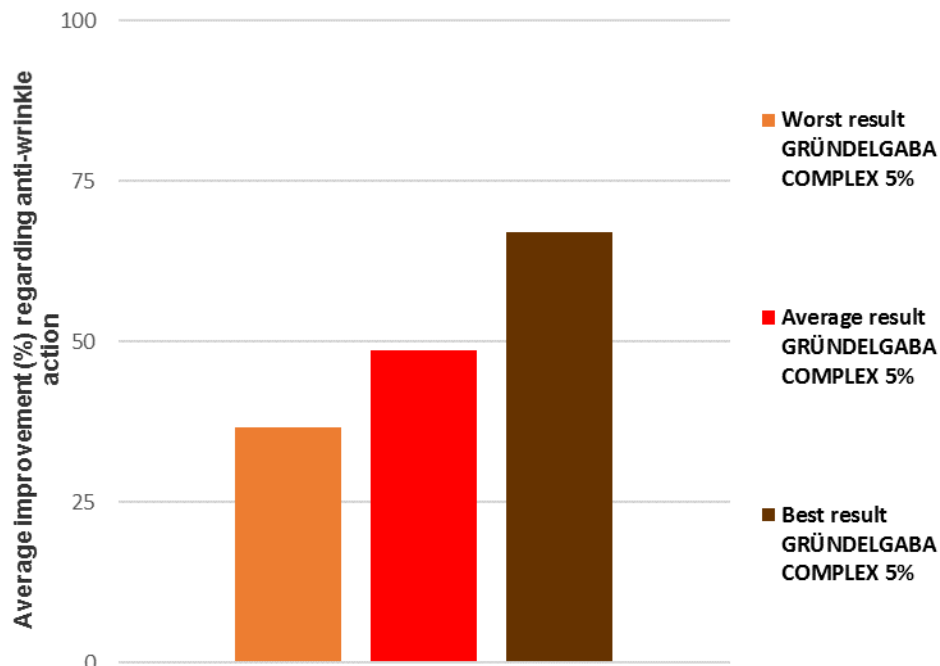




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### GRÜNDELGABA COMPLEX 5%



#### Results:

Worst result GRÜNDELGABA COMPLEX 5%: **36,5%**.  
Average result GRÜNDELGABA COMPLEX 5%: **48,5%**.  
Best result GRÜNDELGABA COMPLEX 5%: **67%**.

#### 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.