



BIOGRÜNDL, S.L.
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TECHNICAL DATA SHEET

MATCHA GREEN TEA **EXTRACT** **/ A / HGL / CA11 /**



Trade Name: MATCHA GREEN TEA EXTRACT / A / HGL / CA11 /.

Product Code: ETVMAHGCA11.

INCI Name: AQUA, GLYCERIN, CAMELLIA SINENSIS LEAF EXTRACT, POTASSIUM SORBATE.

INCI Status: Conforms.

REACH Status: Low Volume Exemption.

CAS Number: 7732-18-5; 56-81-5; 84650-60-2; 24634-61-5 / 590-00-1.

EC Number: 231-791-2; 200-289-5; 283-519-7; 246-376-1.

Origin: **GLYCERIN:** Vegetable origin.

CAMELLIA SINENSIS LEAF EXTRACT: Vegetable 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: 1,050 - 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: Treatment of acne, dandruff and psoriasis. Suitable for sport products before and after efforts.

Properties: Anti-aging, anti-radical, protective, stimulating of skin metabolism, anti-cellulite and slimming.

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

Matcha green tea has its origin in China and the preparation begins several weeks before its harvest. First the tea plants are covered to hide them from the sun. In this way its growth is delayed and a darker green color appears on the leaves. With this process the tea has greater content in amino acids, thus resulting in a sweeter tea.

After harvest, the leaves are placed on a flat surface for drying. The result is called "tencha". The stem and veins are removed from the leaves before grinding them to a fine powder texture; of an intense green, known as "matcha". Only the ground "tencha" produces matcha.

The taste of matcha depends on its amino acids. The best qualities have a sweeter and more intense flavor. The most common varieties are obtained from the last harvests of the season.

To obtain MATCHA GREEN TEA EXTRACT, BIOGRÜNDL, S.L. starts with the tea leaves just indicated, treating them with a mixture of water and glycerin.

MATCHA GREEN TEA EXTRACT by BIOGRÜNDL, S.L. contains the following active ingredients:

- Amino acids and proteins.
- Puric bases similar to caffeine of coffee and theobromine of cocoa.
- Tannins
- Polyphenols (caffeic and chlorogenic acids).
- Bioflavonoids.
- Antioxidants and anti-radicals.
- Vitamins (B, C, PP and carotenes).
- Trace elements (F and Zn).



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USE AND DOSAGE

The incorporation of matcha green tea extract in Cosmetics is justified by the following properties: anti-aging, anti-radical, protective and stimulant of cutaneous metabolism. Also, as anti-cellulite and slimming.

MATCHA GREEN TEA EXTRACT by BIOGRÜNDL, S.L. is very useful, also, in the treatment of undesirable processes of the skin, such as acne, dandruff and psoriasis. Because of its energizing power, it is indicated for sport products before and after efforts.

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: 1,050 - 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.



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DERMATOLOGY INNOCUOUSNESS

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

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, CAMELLIA SINENSIS LEAF EXTRACT, POTASSIUM SORBATE.

EFFECTIVENESS TESTS

Assay: Double blind spot trial and subsequent cosmetic evaluation.

Assayed parameters: Anti-wrinkle action.

N (volunteers): 30 (20 ♀ and 10 ♂).

Age (volunteers): 34 - 67 years old.

Left side part to be treated:

Placebo, 30 volunteers, suitable cosmetic base.

Right side part to be treated:

MATCHA GREEN TEA EXTRACT 2%, 15 volunteers, suitable cosmetic base.

Right side part to be treated:

MATCHA GREEN TEA EXTRACT 5%, 15 volunteers, suitable cosmetic base.



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Assayed parameters:

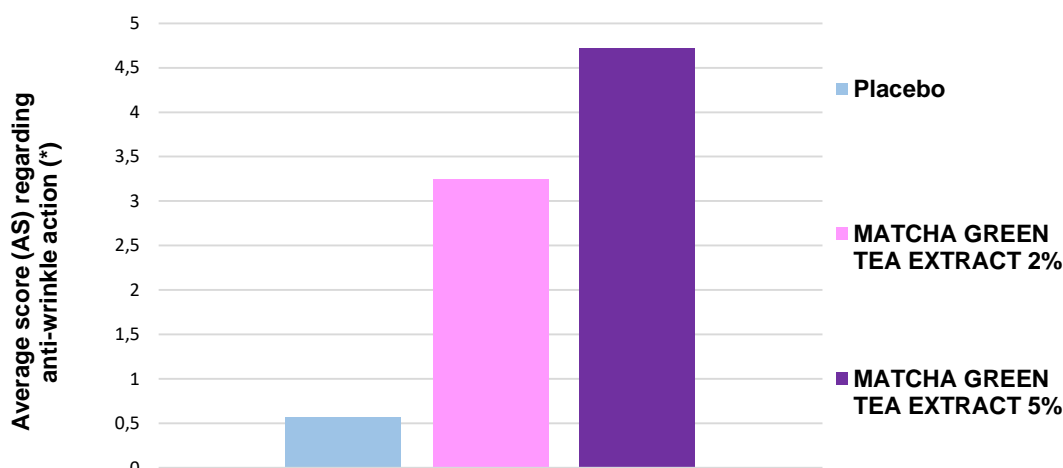
	Assay	N (volunteers)	Age (volunteers)	Placebo	MATCHA GREEN TEA EXTRACT 2%	MATCHA GREEN TEA EXTRACT 5%	Assay performed (Days)	Results measured (Days)
Anti-wrinkle action	Double blind spot trial and subsequent cosmetic evaluation.	N = 30 20 ♀ 10 ♂	34 - 67	Left side part	Right side part 15 volunteers.	Right side part. 15 volunteers.	D = 30	D' = 1



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SKIN CONDITION EVALUATION AFTER 30 DAYS



(*) Anti-wrinkle action was determined by augmented 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% MATCHA GREEN TEA EXTRACT by BIOGRÜNDL, S.L., 5% MATCHA GREEN TEA 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.

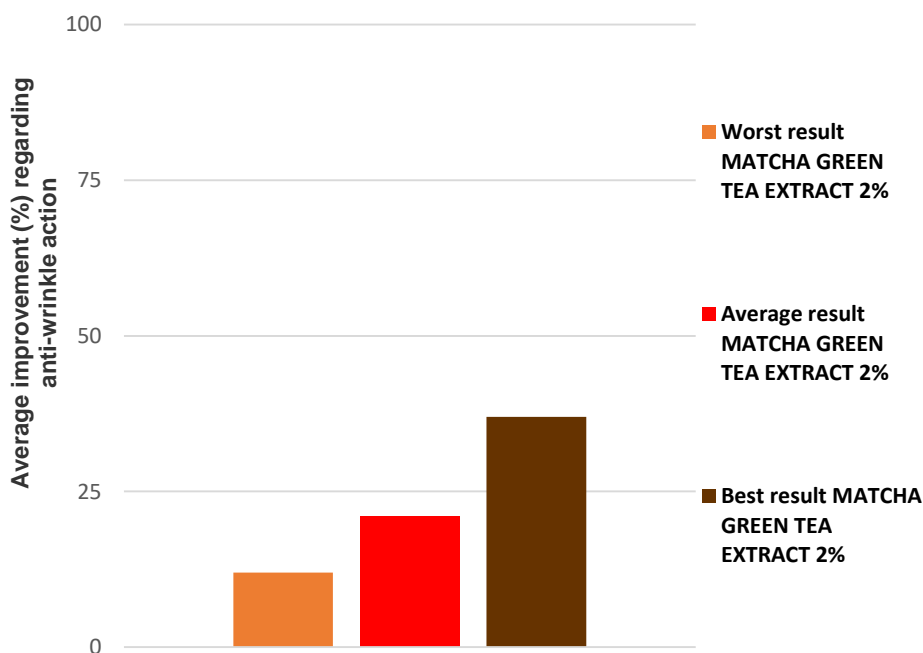
AS rank between 4 – 5: Excellent cosmetic result.



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MATCHA GREEN TEA EXTRACT 2%



Results:

Worst result MATCHA GREEN TEA EXTRACT 2%: 12%.

Average result MATCHA GREEN TEA EXTRACT 2%: 21%.

Best result MATCHA GREEN TEA EXTRACT 2%: 37%.

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.

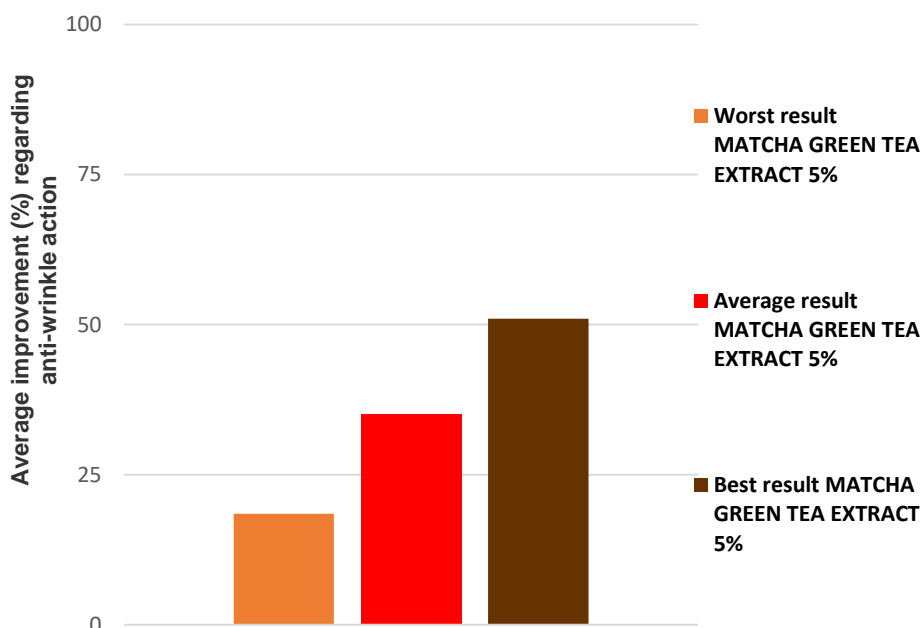
AI rank between > 81%: Excellent cosmetic result.



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MATCHA GREEN TEA EXTRACT 5%



Results:

Worst result MATCHA GREEN TEA EXTRACT 5%: **18,5%**.
Average result MATCHA GREEN TEA EXTRACT 5%: **35%**.
Best result MATCHA GREEN TEA EXTRACT 5%: **51%**.

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.