

# **TECHNICAL DATA SHEET**

# YOGURT EXTRACT / A / HGL / CA11 /



Trade Name: YOGURT EXTRACT / A / HGL / CA11 /.

Product Code: EYGAHGLCA11.

INCI Name: AQUA, GLYCERIN, YOGURT EXTRACT, POTASSIUM SORBATE.

INCI Status: Conforms.

**REACH Status**: Low Volume Exemption.

CAS Number: 7732-18-5; 56-81-5; Not available; 24634-61-5 / 590-00-1.

EC Number: 231-791-2; 200-289-5; Not available; 246-376-1.

Origin: GLYCERIN: Vegetable origin.
YOGURT EXTRACT: Animal 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/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.

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**: Unstressed, aged and damaged skin preparations. Psoriasis, acne and other skin disorders treatment. Hair masks.

**Properties:** Repairing, stimulant, nutritive, refatting, protective, acidifying, moisturizing, elasticizing, anti-wrinkle, vitalizing, remineralizing and vitaminizing.

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

**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.
- Fitocosmeticos 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**

Yogurt is fermented milk by two microorganisms, Streptococcus thermophilus, which gives to it aroma and Thermobacterium bulgaricum, that provides acidity, converting lactose into lactic acid, which coagulates milk, and yogurt is formed.

One of the pioneers in the scientific study of aging and possible influence of yogurt on it, was the Russian scientist Elie Metchnikoff, born in 1845. In 1908 he was awarded with the Nobel Prize in Medicine because of his research on phagocytosis.

In his studies, he realized that saprophytic bacteria in the digestive tract, very useful to facilitate food digestion, eventually are replaced by other pathogens. These produce several toxins being absorbed in the intestine, leading to a progressive self-poisoning and, thereby, to a shortening of life.

To solve this autointoxication, he advocated, on one hand, periodic cleaning of the digestive tract by light purgative and enema; on the other hand, by eating yogurt, a very popular food among Bulgarian farmers but unknown in the rest of Europe. He sensed that the bacteria that produce yogurt, could renew the saprophytic intestinal flora and eliminate the pathogenic one.

Convinced of this theory, Metchnikoff consumed large amounts of yogurt, but his 71 years life was not excessively long. It provided, however, the first serious studies of aging and helped to publicize the yogurt, which is now a popular and highly effective dietary supplement.

YOGURT EXTRACT by BIOGRÜNDL, S.L. is obtained by treatment with a mixture of water and glycerin which carries the following active ingredients:

- · Lactose and lactic acid.
- Fats, specially triglycerides of palmitic, stearic and oleic acids. As well as, small amounts of butyric and myristic acids.
- Lecithin and cholesterol, specially HDL.
- Minerals, specially Cl<sup>-</sup>, PO<sub>4</sub><sup>=</sup>, SO<sub>4</sub><sup>=</sup> and CO<sub>3</sub><sup>=</sup> of Ca, K, Na, Mg and Fe.
- Vitamins, rich in A, B<sub>1</sub>, B<sub>2</sub>, and, in a lower proportion, D and C.



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• Proteins, formed by calcium caseinate, insoluble and soluble lactoalbumin nature. In yogurt, proteins are partially hydrolyzed and its aminogram is:

**ALANINE** ARGININE ASPARTIC AC. CYSTINE GLUTAMIC AC. **GLYCINE HISTIDINE ISOLEUCINE LEUCINE** LYSINE **METHIONINE** PHENYLALANINE **PROLINE SERINE** THREONINE TRIPTOPHAN **TYROSINE** VALINE

# **USE AND DOSAGE**

The incorporation of yogurt extract in cosmetics is justified by its repairing, stimulant, nutritive, refatting, protective, acidifying, moisturizing, elasticizing, anti-wrinkle, vitalizing, remineralizing and vitaminizing properties.

It is used in preparations for unstressed, aged and damaged skin. Because of its content in lactic acid, alpha hydroxy acid nature, it is very useful treating problems of psoriasis, acne and other skin disorders. Also, in hair masks, especially those aimed at weak and prone to premature fall hair.

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%.



# **TECHNICAL DATA SHEET**

## 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/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.

# **DERMATOLOGY INNOCUOUSNESS**

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

# **EFFECTIVENESS TESTS**

**Assay:** Double blind spot trial and subsequent cosmetic evaluation. **Assayed parameters:** Moisturizing action. Anti-wrinkle action.

N (volunteers): 30 (18 % and 12  $\checkmark$ ). Age (volunteers): 20 – 88 years old.

Left side part to be treated:

Placebo, 30 volunteers, suitable cosmetic base.

Right side part to be treated:

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

Right side part to be treated:

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



# **TECHNICAL DATA SHEET**

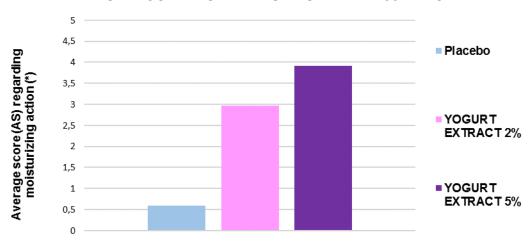
# **Assayed parameters:**

|                     | Assay   | N (volunteers)           | Age<br>(volunteers) | Placebo           | YOGURT<br>EXTRACT 2%              | YOGURT<br>EXTRACT 5%                  | Assay<br>performed<br>(Days) | Results<br>measured<br>(Days) |
|---------------------|---|--------------------------|---------------------|-------------------|-----------------------------------|---------------------------------------|------------------------------|-------------------------------|
| Moisturizing action | Double blind spot trial and subsequent cosmetic evaluation. | N = 30<br>18♀ and 12 ਕਾਂ | 20 – 88             | Left side<br>part | Right side part<br>15 volunteers. | Right side<br>part.<br>15 volunteers. | D = 30                       | D' = 30                       |
| Anti-wrinkle action | Double blind spot trial and subsequent cosmetic evaluation. | N = 30<br>18♀ and 12 ਕਾਂ | 30 – 88             | Left side part    | Right side part<br>15 volunteers. | Right side part. 15 volunteers.       | D = 30                       | D' = 1                        |



# **TECHNICAL DATA SHEET**

#### **SKIN CONDITION EVALUATION AFTER 30 DAYS**



(\*) Moisturizing action was determined by using a device called Tewameter which evaluates moisturizing effectiveness, providing TEWL parameters (transepidermal water loss), on 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' = 30 days ( every 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, 2% YOGURT EXTRACT by BIOGRÜNDL, S.L., 5% YOGURT 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.

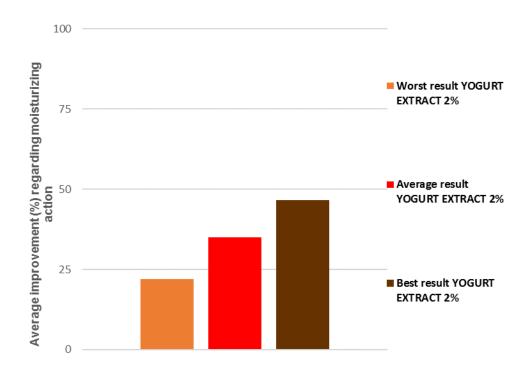
AS rank between 3 – 4: Great improvement regarding placebo.

AS rank between 4 – 5: Excellent cosmetic result.



# **TECHNICAL DATA SHEET**

# **YOGURT EXTRACT 2%**



#### Results:

Worst result YOGURT EXTRACT 2%: 22%. Average result YOGURT EXTRACT 2%: 35%. Best result YOGURT EXTRACT 2%: 46,5%.

# Results meaning:

Al rank between < 20%: No significant changes.

Al rank between 21 – 40%: Slight improvement regarding placebo.

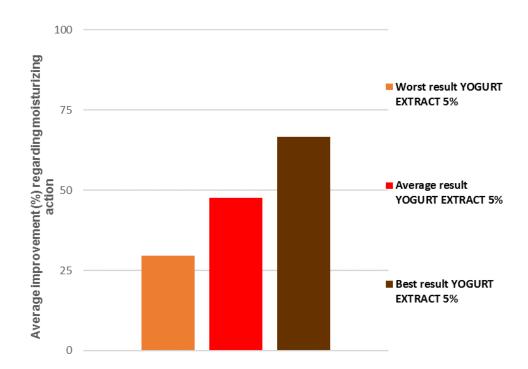
Al rank between 41 – 60%: Appreciable improvement regarding placebo.

Al rank between 61 – 80%: Great improvement regarding placebo.



# **TECHNICAL DATA SHEET**

# **YOGURT EXTRACT 5%**



#### Results:

Worst result YOGURT EXTRACT 5%: 29,5%. Average result YOGURT EXTRACT 5%: 47,5%. Best result YOGURT EXTRACT 5%: 66,5%.

# Results meaning:

Al rank between < 20%: No significant changes.

Al rank between 21 – 40%: Slight improvement regarding placebo.

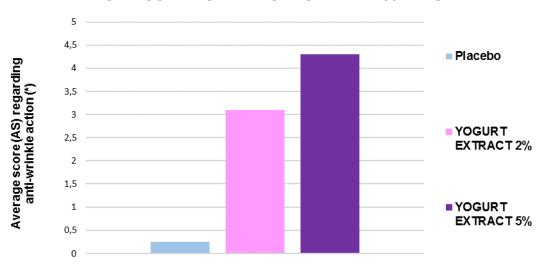
Al rank between 41 – 60%: Appreciable improvement regarding placebo.

Al rank between 61 – 80%: Great improvement regarding placebo.



# **TECHNICAL DATA SHEET**

#### **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% YOGURT EXTRACT by BIOGRÜNDL, S.L., 5% YOGURT 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.

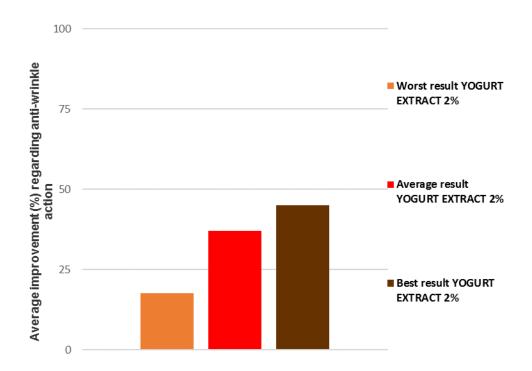
AS rank between 3 - 4: Great improvement regarding placebo.

AS rank between 4 – 5: Excellent cosmetic result.



# **TECHNICAL DATA SHEET**

# **YOGURT EXTRACT 2%**



#### Results:

Worst result YOGURT EXTRACT 2%: 17,5%. Average result YOGURT EXTRACT 2%: 34%. Best result YOGURT EXTRACT 2%: 45%.

# Results meaning:

Al rank between < 20%: No significant changes.

Al rank between 21 – 40%: Slight improvement regarding placebo.

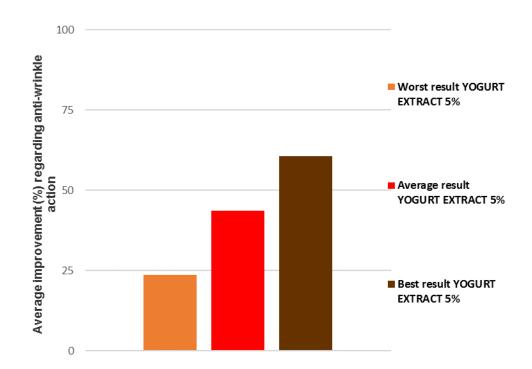
Al rank between 41 – 60%: Appreciable improvement regarding placebo.

Al rank between 61 – 80%: Great improvement regarding placebo.



# **TECHNICAL DATA SHEET**

#### **YOGURT EXTRACT 5%**



#### Results:

Worst result YOGURT EXTRACT 5%: 23,5%. Average result YOGURT EXTRACT 5%: 43,5%. Best result YOGURT EXTRACT 5%: 60,5%.

# Results meaning:

Al rank between < 20%: No significant changes.

Al rank between 21 – 40%: Slight improvement regarding placebo.

Al rank between 41 – 60%: Appreciable improvement regarding placebo.

Al rank between 61 – 80%: Great improvement regarding placebo.