

TECHNICAL DATA SHEET

Raw Material Name: Nannochloropsis oculata Microalgae Ferment

INCI Name: Saccharomyces/Nannochloropsis Oculata Ferment Lysate Filtrate, Glycerin

CAS: n/a, 56-81-5

Chemical Classification: Aqueous fermented biotechnological microalgae complex in glycerin

Synonyms: Microalgae Ferment; Fermented Microalgae Lysate; Nannochloropsis oculata Ferment; Saccharomyces/Nannochloropsis Ferment Lysate Filtrate

Functional Category: Skin-conditioning active ingredient; humectant; revitalising and protective ingredient; ingredient intended for anti-ageing and hydrating formulations

Product Description: Microalgae Ferment is a biotechnologically derived cosmetic active ingredient produced by fermenting the microalga Nannochloropsis oculata with a microorganism of the genus Saccharomyces. Following fermentation, the resulting material undergoes lysis, i.e. breakdown of the biological material, and is then filtered to remove insoluble residues. This process produces a lysate filtrate containing soluble components derived from the fermented material and metabolites formed during fermentation. Glycerin serves as a humectant carrier and contributes to the hydrating action of the raw material. The fermentation process modifies the biochemical composition of the starting material and produces a complex of soluble components suitable for use in cosmetic formulations. The resulting raw material is intended for formulations designed to hydrate, condition and revitalise the skin, particularly skin exposed to environmental stressors and signs of premature ageing. The raw material is a golden liquid with a mild characteristic fruity odour and is completely soluble in water. The pH of the undiluted product is 3.0-4.5, while its density is 1.12-1.14 g/cm³ at 20 °C. The product contains 50-55% Saccharomyces/Nannochloropsis Oculata Ferment Lysate Filtrate and 45-50% glycerin.

Bioactive Compounds: The fermented filtrate may contain soluble peptides, amino acids, oligosaccharides, polysaccharides, minerals and other metabolites formed during fermentation and the breakdown of microalgal cells. Together, these components contribute to hydration, conditioning and improvement of the skin's overall appearance. Nannochloropsis oculata naturally contains lipids, pigments, proteins and other bioactive substances. However, because the product is a filtered fermented lysate in a glycerin carrier, the presence and concentration of individual compounds, including fatty acids and pigments, depend on the manufacturing process and are not specified as standardised active components.

Disclaimer: The details provided here are specific to the identified material and may not remain accurate if that material is combined with other substances or used in different processes. The information presented is, to the best of the company's knowledge, considered precise and trustworthy as of the date mentioned. However, the company does not make any explicit or implied assurance, guarantee, or claim regarding the information's precision, trustworthiness, or comprehensiveness, and will not be held accountable for any losses, damages, or costs, whether direct or indirect, that arise from its use. Users are encouraged to independently verify the appropriateness and thoroughness of this information for their specific purposes.

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Note: The product is neither a whole-microalgae extract nor a microalgae oil, but a fermented lysate filtrate. Its composition and functionality therefore differ from lipid extracts of *Nannochloropsis oculata*. The raw material is intended exclusively for cosmetic use. Compatibility with preservatives, electrolytes, thickeners and other active ingredients should be evaluated during formulation development. As with other biotechnologically derived ingredients, minor variations in colour and odour may occur between production batches without affecting the quality or functionality of the raw material.

Benefits:

- Helps maintain an optimal level of skin hydration.
- Contributes to a softer, smoother and more supple skin appearance.
- Conditions the skin and improves its sensory quality.
- Helps preserve the skin's natural barrier function.
- Contributes to a revitalised and well-rested skin appearance.
- Suitable for formulations intended for dry, dehydrated and mature skin.

Directions for Use: Microalgae Ferment is used in serums, essences, toners, gels, emulsion creams, lotions, masks and products intended for skin care after exposure to adverse environmental influences. It is also suitable for formulations intended for sensitive areas, such as the eye contour. Addition during the final cool-down phase, at temperatures below 40 °C, is recommended to preserve the heat-sensitive components of the ferment. The recommended use concentration is 1-5%. Higher concentrations may be considered after appropriate testing of the stability, compatibility and microbiological quality of the final formulation.

Safety of Use: According to Regulation (EC) No 1272/2008, the raw material is not classified as hazardous. It is not classified as acutely toxic, irritating to the skin, sensitising, carcinogenic, mutagenic or toxic to reproduction. According to the safety data sheet, the product does not contain substances identified as having endocrine-disrupting potential. During professional handling, direct eye contact, inhalation of aerosols and prolonged skin contact with the undiluted raw material should be avoided. In case of eye contact, rinse immediately with plenty of water. The safety, stability and efficacy of the final cosmetic product must be confirmed by appropriate testing.

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Natural or Synthetic Ingredient: A biotechnological ingredient of natural origin, produced by fermentation of microalgal biomass with glycerin as the carrier.

Animal Testing: In accordance with the applicable European legislation, namely Regulation (EC) No 1223/2009 on cosmetic products, the substance has not been tested on animals. The safety assessment of the raw material is based on available toxicological data, scientific literature and validated alternative testing methods, including in vitro and in silico methods. In silico refers to testing and assessment methods performed using computer models and simulations rather than on living organisms or cell cultures. This statement confirms compliance with the animal testing ban and is provided solely for informational purposes regarding the further use of the raw material in cosmetic formulations.

GMO: Non-GMO.

Vegan: Contains no components of animal origin.

Storage and Shelf Life: The product is stable when stored in a cool, dry place. Shelf life is 2 years.

Raw Material Origin: EU