

Ingredients Information Algae





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Encyclopedia of Ingredients

ALGAE EXTRACT

Algae Extract is obtained by extraction of sea algaes. Algae contain vital trace elements for the skin, such as lodine, Zinc, Magnesium, Copper, Silicon, that are decisive for the metabolic processes of the skin. Thanks to its water-binding properties, it supports other moisturizing factors. Algae extract smoothes the horny layer and makes it supple.

Description:

Algae or Seaweeds are plants in primitive form. They do not possess the typical plant leaves, flowers, stems or roots but organs that resemble their shape and functions, such as shoots, rhizoids, haptera and holdfasts. There are approximately 25000 species of seaweeds. The size of plants vary from mono cellular organisms to giant kelps. Seaweeds absorb nutrients through their entire body surface from the surrounding water by osmosis. Algae contain amino acids, minerals, trace elements (lodine) and vitamins (A, B2, B12, C, D, E und K). The rate of growth of seaweeds is influenced by ecological factors such as light density, sea currents, seasons, habitat and depth of the water. These factors have an effect on the color, texture and chemical composition of the seaweed.

Constituents of Algae extract:

Alginic acid, proteins, mannitol, iodine, carbohydrates, free amino acids and traces of vitamins and minerals.

Properties of Algae extract:

Algae extract has a moisturizing effect. It is film-forming, skin-firming.

Cosmetic applications:

Algae extract is commonly used in anti-cellulite products and in general for treatment of aging skin. Thalassotherapy and algotherapy are therapeutic applications using seaweeds.







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LAMINARIA DIGITATA EXTRACT

Laminaria digitata is a member of class Phaeophyceae, also called brown algae. Its richness in mineral salts, trace elements and vitamins make it an algae with eminently cosmetic applications.

Description:

Laminaria digitata is a large, flexible brown algae with a rubbery texture. Colour ranges from light brown to dark brown. Laminaria grows in temperate and arctic waters generally on exposed rocky shores in the low intertidal and subtidal zones. It is also extensively cultivated on ropes in the sea in Japan, China and Korea.



Laminaria digitata

Constituents of Laminaria digitata:

Laminaria digitata contains alginic acid, proteins, mannitol, iodine, carbohydrates, free amino acids and traces of vitamins and minerals.

Properties of Laminaria digitata:

Moisturizing, soothing, anti-irritant, anti-cellulite, antiseptic. Antiedema activity: Laminaria digitata contains organic iodine, which mobilizes the fluids retained in some body areas, stimulates blood circulation and helps eliminating toxins.

Cosmetic applications:

Seaweed extracts are commonly used in anti-cellulite products and in general for treatment of aging skin. Thalassotherapy and algotherapy are therapeutic applications using seaweeds.

CODIUM TOMENTOSUM EXTRACT

Codium tomentosum extract is a marine moisturizing factor obtained from a green alga called codium tomentosum. Codium tomentosum extract normalizes and balances skin's moisture content. When formulated into creams or lotions, it rapidly hydrates the skin. Unlike normal moisturizing agents, the hydrating effect of Codium tomentosum extract is long lasting, and its moisturizing effects can still be observed several hours later.

Description:

Codium tomentosum is a small green alga (up to 30 cm long) with a dichotomously branched, cylindrical frond. The frond is solid and spongy with a feltlike touch and has many colourless hairs which can be seen when the plant is immersed in water. The holdfast is disclike and formed from many fine threads. Codium tomentosum demonstrates remarkable properties in its ability to maintain a constant hydration level, despite increases (or decreases) in salinity, or the drying effects of the sun and wind when left exposed in shoreline tide pools. These remarkable properties are due to the presence of highly sulphated polysaccharides in the cell membranes and "osmotic" molecules in the cytoplasm.



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Codium tomentosum

Constituents of Codium tomentosum extract:

Sulfated polysaccharides, Glucuronic acid, Sugars, Minerals, Proteins, Beta-hydroxy acid.

Properties of Codium tomentosum extract:

Moisturizing regulating effect, long-term moisturizing, in-depth moisturizing, natural exfoliation.

Cosmetic applications:

Moisturizing skin care, oily skin, masks.



SEA SILT EXTRACT (Maris limus extract)

Sea Silt extract is an aqueous extract of marine sediments. It is recommended for vitalizing treatments in all cosmetics and toiletries.



Constituents of Sea Silt extract:

Sea silt is rich in beneficial ingredients, such as minerals and trace elements.

Properties of Sea Silt extract:

Skin protecting; maintaining or restoring skin's energy.

Cosmetic applications:

Nourishing gels, emulsions and toners with oligoelements.

CHONDRUS CRISPUS EXTRACT

Chondrus crispus extract is obtained from the red algae Chondrus crispus, also known as Carrageenan Moss or Irish Moss. Rich in trace elements, polysaccharides and micronutrients, this red seaweed is excellent for use in cosmetics. It is highly moisturizing, film-forming, emollient and it has shown to have anti-inflammatory and soothing properties.

Description:

Chondrus crispus, known under the common name Irish moss, or carrageen moss is a species of red alga which grows abundantly along the rocky parts of the Atlantic coast of Europe and North America. In its fresh condition the plant is soft and cartilaginous, varying in color from a greenish-yellow, through red, to a dark purple or purplish-brown. The principal constituent of Irish moss is a mucilaginous body, made of the polysaccharide carrageenan of which it contains about 55%. The plant also consists of nearly 10% protein and about 15% mineral matter, and is rich in iodine and sulfur.



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Chrondrus crispus

Constituents of chondrus crispus extract:

50-70% carrageenan, 7-10% protein, amino acids, sterines, carotene, vitamins, sodium, potassium, calcium, iodine and trace elements.

Properties of chondrus crispus extract:

Chondrus crispus extract is moisturizing, film-forming, emollient and it has shown to have anti-inflammatory and soothing properties.

Cosmetic applications:

Chondrus crispus extract is used for moisturizing and soothing products.



ALLANTOIN

Allantoin is a protein metabolism product found in many animal and plant species and is for example extracted from the root of the comfrey (Symphytum officinale) and the horse chestnut (Aesculus hippocastanum). Chemically synthesized bulk allantoin is natural-identical, safe, non-toxic, compatible with cosmetic raw materials, and meets CTFA and JSCI requirements.



Cosmetic benefits:

Allantoin is a multifunctional active ingredient. It is used for: a moisturizing and keratolytic effect, increasing the water content of the extracellular matrix and enhancing the desquamation of upper layers of dead skin cells, increasing the smoothness of the skin, promotion of cell proliferation and wound healing; and a soothing, anti-irritant and skin protectant effect by forming complexes with irritant and sensitizing agents.

Cosmetic applications:

Allantoin is frequently present in toothpaste, mouthwash and other oral hygiene products, in shampoos, lipsticks, anti-acne products, sun care products, clarifying lotions, various cosmetic lotions and creams and other cosmetic products.

ALMOND OIL

Almond oil is obtained from the Prunus dulcis var. dulcis (Sweet Almond) or Prunus dulcis var. amara (Bitter Almond) or from a mixture of the two. It (coldpressed almond oil) is obtained by cold-pressing ripe seeds from these trees or by extraction, followed immediately by refining (refined almond oil). It is of low viscosity, mild to taste and non-drying.

Description:

The original wild almond trees is an extremely ancient cultivated plant that is native to the Mediterranean region (European variety). The second major cultivation area (American variety) is the USA, mainly California. The almond is a small deciduous tree, growing to between 4 and 10 metres in height, with a trunk of up to 30 centimetres in diameter. The leaves are 3-9 cm long and 1.2-4 cm broad, with a serrated margin and a 2.5 cm petiole. The flowers are white or pale pink, 3-5 cm diameter with five petals, produced singly or in pairs before the leaves in early spring. The fruit is a drupe 3.5–6 cm long, with

one seed ("almond"), which tastes sweet or bitter. The oil content in almonds is 47-61%.

Almond oil is a rich source of Vitamin E and unsaturated fatty acids.

Properties of Almond oil:

Constituents of Almond oil:

Emollient.

Cosmetic applications:

Sweet almond oil is an excellent skin-softening oil used for centuries. It is a mild, lightweight oil, rich in unsaturated fats and essential fatty acids which is easily absorbed into the skin. Almond oil is also used in massage oils.





MACADAMIA OIL

Macadamia oil (or **Macadamia nut oil**) is the non-volatile oil expressed from the nut meat of the macadamia (*Macadamia ternifolia*) tree. Macadamia oil is sometimes used in food as a frying or salad oil, and in cosmetic formulations as an emollient.

Description:

The Macadamia nut is also known as the 'Queensland nut'. As this name suggests, it is native to Australia, where it is a staple dietary component for Aboriginal peoples. The Macadamia nut was first cultivated in 1930, on Hawaii, since which time it has become the only plant of Australian origin to acquire commercial significance. Nowadays, these trees, which came originally from an area extending from Queensland to New South Wales and which grow to a height of 15 m, producing 8-15 ovaries per raceme, are cultivated all round the world and the (expensive) nuts are on sale everywhere. Major centres for cultivation are Australia, South Africa and the American state of Hawaii.

Macadamia ternifolia

Constituents of Macadamia oil:

Macadamia nut oil covers a broad fatty acid spectrum, from myristic to tetracosanoic acid, dominated by oleic acid (53-67%), palmitoleic acid (16-24%) and palmitic acid (8-10%). Eicosanoic, eicos-9-enoic-, docosanoic, erucic and tetracosanoic acid amount to 1-3%.

Properties of Macadamia oil:

Macadamia oil is excellent as a skin moisturiser and softener.

Cosmetic applications:

Macadamia nut oil is an excellent oil for dry, chapped and sensitive skin, because its fatty acid composition is similar to human sebum. It smoothes the skin, and it is softening and regenerating.





BISABOLOL

Bisabolol is an ingredient found in the essential oil from German chamomile (*Matricaria recutita*) and *Myoporum grassifolium*. Bisabolol has a weak sweet floral aroma and is used in various fragrances. It has also been used for hundreds of years in cosmetics because of its perceived skin healing properties.



Properties of Bisabolol:

Bisabolol is known to have anti-irritant, anti-inflammatory and anti-microbial properties.

Cosmetic applications:

Bisabolol is used in skin care, baby care, after sun products, after shave.