# PHARMA - DIETARY SUPPLEMENTS

2022



# PHARMA - DIETARY

Specific the include vitamins, Omega-3, DHA, trace elements and proteins.

Algae are also very versatile in their processing because of their availability in different forms, such as powder, extract, pellets, oleoresin or even as capsules and/or tablets.

☐ For further processing or as a white label product, you will find your suitable algae.



## **AMMONIUM ALGINATE (E403)**







- Heat resistant, fat soluble, water binding properties
- Gelling agent
- Coating agent

Delivery time On Demand





## Typical applications

More commonly known under the E number "E403", ammonium alginate is a compound between ammonium acid and alginic acid.

Alginic acid is a naturally present, edible polysaccharide obtained from brown algae. Together with the chemical additive ammonium acid, they produce ammonium alginate. The final product has great heat resistant, fat soluble properties and the ability to bind water.

In the food industry, ammonium alginate is mostly used as a gelling, thickening and coating medium. In combination with calcium ions, E403 forms gels that are stable to cooking and freezing. For this reason, its use as a coating agent to protect food from drying out and to ensure stability during freezing and defrosting is very popular.

This product is available in the following forms: Ammonium Alginate powder.

## **ASCOPHYLLUM NODOSUM**



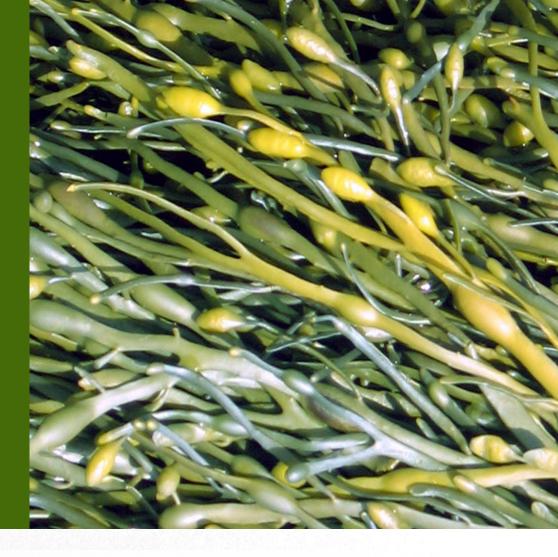


- Potassium, Magnesium, Calcium, Iodine
- Natural fertilizer
- Extraction of alginic acids
- Skin hydration

Delivery time On request









Ascophyllum nodosum, also known as "Kelp" is a brown algae widely distributed in the Atlantic Ocean, it also occurs in the North and Baltic Sea. Due to its many ingredients and trace elements it is well suited as an ingredient for food. However, probably the best known application is its use for the extraction of alginic acid, which is used as a thickening agent in the food industry.

In addition, Kelp has also been used for a long time as a natural and environmentally friendly fertilizer.

In cosmetics, Kelp is also used for its moisturising properties, which help dry skin and make the skin feel softer.

The powder is commonly used for food and dietary supplements.

This product is available in the following forms: Ascophyllum nodosum powder, Ascophyllum nodosum flakes and dried raw Ascophyllum nodosum algae. This product is also available as a non-organic variant.



powder

# CHLORELLA **PYRENOIDOSA**







• up to 60% of Protein

Delivery time On Request





- Chlorella powder is used as a food supplement, or as an ingredient in various foods such as lemonades, smoothies, power bars, etc.
- As a feed, the powder is often integrated into mixed pet food.

# **CHLORELLA VULGARIS**



- Protein 50 %
- Vitamin B12

Delivery time On Request







- Chlorella tablets are used as food supplements
- Due to the tablet form the dosage is easy and oral intake is unproblematic



Capsules

# CHLORELLA **VULGARIS**



- Protein 50 %
- Vitamin B12

Delivery time On Request





- Chlorella capsules are used as food supplements
- The capsules make dosage easy and oral intake unproblematic

## **CHLORELLA VULGARIS**









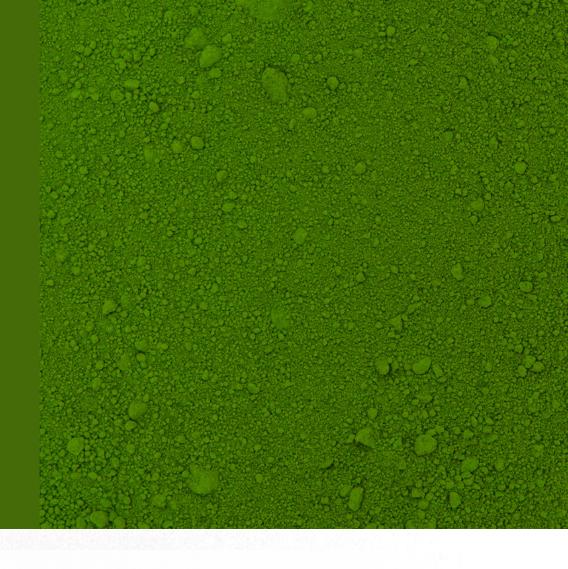


- organic
- from controlled cultivation in closed systems

Delivery time 3-7 weeks









## Typical applications in the cosmetics industry

Chlorella vulgaris offers soothing and moisturizing properties for the skin. These, in turn, can help the complexion appear younger. Thus, it can be used in anti-aging cosmetics.

Like many other algae, Chlorella vulgaris is known for its role as an antioxidant, which helps protect the skin from oxidative stress.

Apart from the protective factor of Chlorella vulgaris, it can also actively help to support and promote the healing and repair process of the skin.



## **CHONDRUS CRISPUS**









- Trace elements
- Vitamin A, E, F and K
- Calcium
- Potassium
- Iodine

Delivery time On request







# Typical applications in the cosmetics industry

Chondrus crispus powder can be used as an antioxidant and also has antiinflammatory properties.

The versatile nutrient profile of Chondrus crispus powder contains amino acids, minerals and vitamins. They can be absorbed and accumulated by the skin when blended in cosmetics products. These ingredients can have a positive effect on skin as a whole.

The natural polysaccharides and the occlusive properties, as well as the peptides and amino acids help the skin retain its moisture. Therefore it is well suited for use in lotions and moisturizers.

## **DUNALIELLA** SALINA











 beta-Carotene 2%, 2-3% or 4-6%.

Delivery time 3-5 weeks







# Typical applications in the cosmetics industry

Dunaliella salina acts as a powerful antioxidant and preserves the skin from oxidative stress and can help heal damage better. In addition, the algae has an antiinflammatory effect.

Due to its rich content of minerals and vitamins, Dunaliella salina can help improve the appearance of the skin. These substances penetrate deep into the skin, leaving it refreshed and relaxed.

The fatty acids, proteins and vitamins help to form a protective film on the skin. This acts supportively for the skin to retain moisture better. In addition, the very high content of beta-carotene, which can be used preventively against skin aging.



## **FUCUS VESICULOSUS**





- Mannitol
- Fucitol
- beta-Carotene
- Zeaxanthin
- Iodine
- Potassium
- Minerals

Delivery time On request







## Typical applications

Fucus vesiculosus also known as "bladderwrack" is a brown alga that occurs in many parts of the oceans.

It has been traditionally used as a food for centuries, especially in Ireland, Scotland and Great Britain.

Because of its many nutrients, it can also be used as a fertilizer in the form of mulch, which is added directly to the soil, or as part of compost.

But bladderwrack is not only interesting for humans and plants, but also for animals. Thanks to the micro-nutrients, it is ideal as an additive for animal feed.

Apart from its nutrients, bladderwrack can also be used for medical purposes. For example, it is recognised by the European Medicines Agency as an aid to weight reduction.

Fucus vesiculosus, is also used in cosmetics to soften dark circles under the eyes and reduce signs of fatigue. Bladderwrack also has a skin tightening effect, which gives the skin an overall younger appearance. For example, the cosmetics company Gallinée has developed a special cream based on Fucus vesiculosus.

The powder is commonly used for food and dietary supplements.

This product is available in the following forms: Fucus vesiculosus powder, Fucus vesiculosus flakes and dried Fucus vesiculosus raw algae. This product is also



2022 | Pharma - Dietary Supplemientale as a non-organic variant.

#### GRACILARIA SP.







- Minerals
- Amino acids
- Fatty acids
- Sterols
- Oxylipins

Delivery time On request









# Typical applications in the cosmetics industry

Gracilaria sp. powder contains a wide range of minerals, amino acids and vitamins. These are absorbed when mixed in cosmetic products and applied to the skin and can have a positive effect on the appearance of the skin. Thus, Gracilaria sp. powder has a nourishing and nurturing effect on the skin.

This nourishing and replenishing effect can smooth, tighten and renew the skin. This makes Gracilaria sp. well suited for anti-aging cosmetics.



# **HAEMATOCOCCUS PLUVIALIS** (ASTAXANTHIN)





- Organic
- Astaxanthin 10 %

Delivery time On Demand







# Typical applications in the cosmetics industry

Astaxanthin Oleoresin is exactly the same as powder in its benefits, but it has the advantage of being easier to incorporate into lotions, serums and other liquid cosmetics than powder.

Astaxanthin's benefits include its role as the most potent antioxidant and its protective properties against free radicals and associated oxidative stress.

In addition to its properties as an antioxidant, there are also its anti-inflammatory effects and its potential to be used in anti-aging cosmetics, as it has a firming effect on the skin's appearance.

Capsules

# **HAEMATOCOCCUS PLUVIALIS** (ASTAXANTHIN)



- Astaxanthin
- Vitamin E

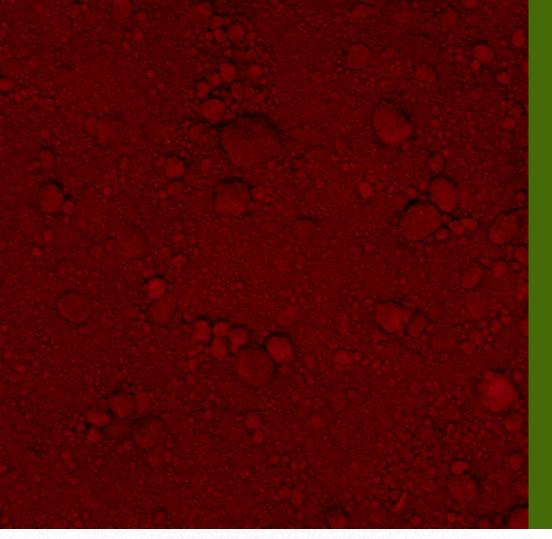
Delivery time On Demand







- Astaxanthin oleoresin is used as an ingredient in food supplements and is valued in cosmetics for its easy processing.
- The astaxanthin generates a healthy and fresh skin appearance due to its anti-inflammatory and antioxidant effect.



# **HAEMATOCOCCUS PLUVIALIS** (ASTAXANTHIN)





Astaxanthin 2-5%

Delivery time On Demand





## Typical applications in the cosmetics industry

Astaxanthin is considered the most powerful antioxidant and is excellent at helping to reduce oxidative stress. Astaxanthin thus helps to support and better maintain the skin.

In addition, astaxanthin has anti-inflammatory properties and contributes to a better skin appearance. Since astaxanthin can also contribute to firmer skin, it is well suited for anti-aging cosmetics.

The powder can be used in creams and peelings, but it is not limited to these examples of use.

## **HALOPTERIS** SCOPARIA





- Antioxidant
- Antifungal
- Antimicrobial
- Antimitotic

Delivery time On Demand



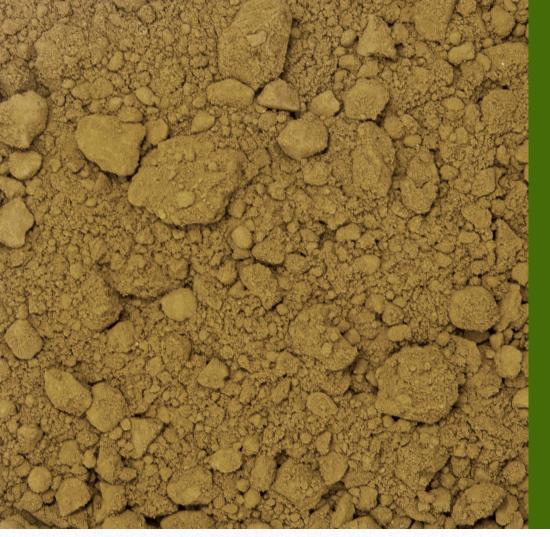




## Typical applications in the cosmetics industry

Halopteris scoparia has antibacterial properties. The extract of Halopteris scoparia shows good activity against Propionibacterium acnes, Staphylococcus aureus, Bacillus subtilis and Escherichia coli and thus has the potential to be used as a supporting ingredient for preservation in cosmetics.

Halopteris scoparia can help keep skin in good condition through its versatile profile of nutrients and active ingredients.



powder

## **ISOCHRYSIS GALBANA**







- beta-Carotene
- Zeaxanthin
- Fucoxanthin
- Cantaxanthin
- DHA
- ALA

Delivery time On request





## Typical applications in the cosmetics industry

Isochrysis galbana shows the potential in care products, which are used for the treatment and care of hair.

In addition, Isochrysis galbana extract has antibacterial activity. Especially against Cutibacterium acnes and Staphylococcus epidermidis it shows effect and can be used to keep the skin microbiome in balance and in use as a preservative in formulations.

## LAMINARIA DIGITATA







- Minerals
- Vitamins A, D, E and K
- Omega-3 fatty acids
- Carbohydrates
- Iodine
- Potassium
- Calcium

Delivery time On request









#### Typical applications

Laminaria digitata, also known as "oarweed", is a macro-algae found in the North Atlantic, Baltic and North Sea, which can form extensive seaweed forests.

The best known and economically most relevant use of Laminaria digitata is the production of alginate from the alginic acid it contains, which is used as a thickening agent for the food industry.

But it can also be consumed as a seaweed vegetable.

In the past, Laminaria digitata was valued and used as a natural fertiliser and iodine source.

In addition to its use as a food and fertilizer, oarweed also has much to offer the cosmetics industry.

Due to its many minerals and trace elements, Laminaria digitata has a revitalising and mineralising effect on the skin. Added to this are moisturising and antioxidant properties that protect the skin from external influences.

The powder is commonly used for food and dietary supplements.

This product is available in the following forms: Laminaria digitata powder, Laminaria digitata flakes, Laminaria digitata dried raw algae or Laminaria digitata fresh algae.This product is also available as a non-organic variant.



2022 | Pharma - Dietary Supplementaria digitata can accumulate high quantities of Iodine, therefore it is advisable to reduce consumption to blanched varieties, or keep the amount of consumed tang low.



## **SEAWATER EXTRACT**









- Magnesium
- Chloride
- Sulfate
- Sodium
- Calcium
- Potassium

Delivery time On Demand





## Typical applications in the cosmetics industry

Sea water extract provides fresh and radiant skin. By activating the cellular functions, the water supply of the skin is strengthened. Thus, the skin is soothed and remineralized after using the sea water extract.

Seawater extract can contribute to a healthy skin appearance and is therefore ideal for different sensitive and irritated skin types. Sea water extract is also well suited for face and body care due to its ingredients.

# **SODIUM ALGINATE (E401)**







- Heat resistant, fat soluble, water binding properties
- Gelling agent
- Coating agent

Delivery time On Demand







## Typical applications

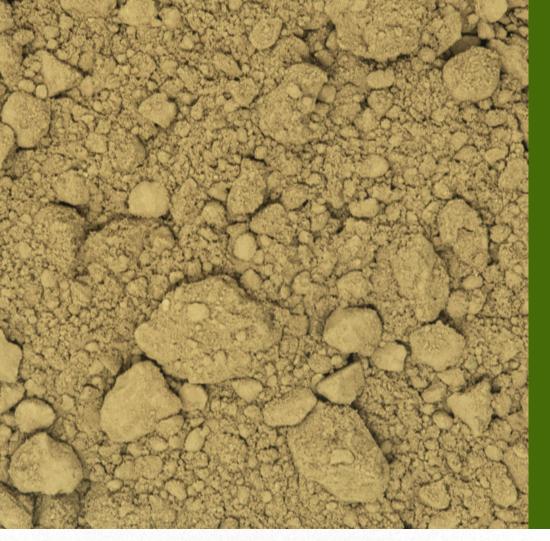
Sodium alginate is probably better known under th E-number "E401" and can be found on the ingredient lists of many foods.

Sodium alginate is the sodium salt of alginic acid. Alginic acid is a naturally present, edible polysaccharide found in various brown algae.

With the addition of calcium ions, sodium alginate forms a gel which is stable to cooking, freezing and baking. As a coating agent, sodium alginate lends stability to foods. This means they retain their shape even after freezing and thawing. Additionally, sauces and dessert become creamier as fat and water mix more easily after the addition of sodium alginate.

Besides its popularity in the food industry, sodium alginate also finds use in the production of animal foods, fertilizers and pharmaceuticals.

This product is available in the following froms: Sodium Alginate powder



## **ODONTELLA** AURITA









- Protein
- EPA Omega-3 Fatty Acid
- Fucoxanthin

Delivery time On Demand





# Typical applications in the cosmetics industry

Odontella aurita is rich in EPA (eicosapentaenoic acid) and other bioactive molecules such as pigments. The diatom reduces the formation of fat cells and blocks lipogenesis (serves to store unused food energy), so can have a special effect on cellulite and prevent skin aging.

# PALMARIA PALMATA (DULSE)







- Traditional food ingredients
- Trace elements: Iron,
   Potassium, Magnesium
- Proteins and Vitamin B

Delivery time
On request









# Typical applications in the cosmetics industry

Palmaria palmata powder has a wide profile of ingredients, including amino acids, iron, calcium, magnesium, vitamins and ingredients with antibacterial effect. Due to this diversity, Palmaria palmata powder can be well blended into cosmetics to nourish the skin and improve skin texture.

Palmaria palmata powder is increasingly used as part of moisturizers, cleansers and massage oils. In addition, it is used in hand creams, conditioners, soaps, and cleansing creams.



powder

## **PHAEODACTYLUM TRICORNUTUM**







- Protein
- Zeaxanthin
- Fucoxanthin
- DHA
- EPA
- DPA

Delivery time On request





# Typical applications in the cosmetics industry

Phaeodactylum tricornutum makes the skin smooth and supple and can relieve discomfort (e.g. itching) of the skin and scalp. The microalga binds moisture in the use of cosmetic products, which is why it is often used as a humectant in facial toners and scrubs.

Phaeodactylum tricornutum microalgae can have a calming effect by rebalancing the microbiome of sensitive skin and controlling the overall inflammatory process.

Phaeodactylum tricornutum can be used as a preventive care against environmental skin aging, so it is ideal for use in anti-aging cosmetics.

# PORPHYRA **UMBILICALIS** (NORI)





- Vitamin B-12
- Traditional ingredient for food
- Skin protecting and uv-actice ingredients for natural cosmetics

Delivery time







On request

# Typical applications

Porphyra umbilicalis, also known as "Nori", is probably best known to most as part of Japanese cuisine. But its potential does not end there, quite the contrary. Due to its rich content of vitamin B-12, amino acids and antioxidants, it is ideal for food and natural cosmetics.

Especially interesting is its UV-protective effect, which makes it possible to use it as an ingredient for natural sun creams.

An example of this application purpose is the natural sun cream HELIONORI® of the French brand Gelyma.

The powder is commonly used for food and dietary supplements.

This product is available in the following forms: Porphyra umbilicalis (Nori) powder, Porphyra umbilicalis (Nori) flakes, Porphyra umbilicalis (Nori) dried raw algae or Porphyra umbilicalis (Nori) fresh algae. This product is also available as a nonorganic variant.



## **PTEROCLADIELLA** CAPILLACEA





- Antioxidant
- Antifungal
- Antimicrobial
- Antimitotic

Delivery time On Demand





## Typical applications in the cosmetics industry

Pterocladiella capillacea can be a special and valuable ingredient for cosmetic compositions of creams, lotions, powder bases, emulsion bases, soaps, pastes, cleansers, oils and sprays.

The extract of red algae shows an effect for the promotion of hair growth, skin whitening, anti-wrinkle and antioxidant processes.

The macroalga Pterocladiella capillacea has antioxidant and bacterial agglutination (fusion) properties.

# **SCHIZOCHYTRIUM** SP. DHA OMEGA-3 **FATTY ACID**



DHA **250 mg** 

Delivery time On Demand







- DHA capsules are used as a food supplement
- The capsules from the microalgae *Schizochytrium sp.* offer a unique alternative to the usual fish oil

## **SCHIZOCHYTRIUM** SP. DHA OMEGA-3 **FATTY ACID**









- DHA 400 mg
- DHA 550 mg

Delivery time 5-8 weeks





# Typical applications in the cosmetics industry

The microalgae Schizochytrium sp. is rich in the omega-3 fatty acids DHA and EPA and is often used industrially in the form of oil. The DHA of the microalgae Schizochytrium sp. is a key component in cosmetic products, and on the other hand is valued for its anti-inflammatory effect.

In addition, Schizochytrium sp. is becoming increasingly important in personal care and cosmetics, as it shows potential benefits when applied directly to the skin. Among them, for example, deep hydration, anti-aging properties, unclogging of pores and improvement of discoloration.

Capsules

# **SCHIZOCHYTRIUM** SP. DHA/EPA OMEGA-3



- Content ratio of 3:1 DHA/EPA
- 3:1 DHA/EPA 500 mg
- 3:1 DHA/EPA 834 mg

Delivery time On Demand







- DHA/EPA capsules are used as a food supplement
- The capsules from the microalgae *Schizochytrium sp.* offer a unique alternative to the usual fish oil



# SPIRULINA BLUE (PHYCOCYANIN)









- Phycocyanin > 11,5 %
- E10
- E18
- E40

Delivery time On Demand







# Typical applications in the cosmetics industry

Phycocyanin powder is often used in cosmetics as a coloring and functional component. It not only promotes a healthy skin appearance, but also has antiinflammatory properties. In addition, the substance contained in Spirulina determines a long-lasting green-blue coloration in cosmetic formulas such as peelings.

Phycocyanin has strong antioxidant properties. It also contributes to wound healing and tissue regeneration. The antimicrobial and anti-inflammatory effects of phycocyanin powder support the healing process of skin problems such as acne.

Phycocyanin powder is already used in many cosmetic products, such as anti-aging cosmetics, where it remineralizes, revitalizes and moisturizes the skin.

## SPIRULINA BLUE (PHYCOCYANIN)









- Phycocyanin 1g/1000mL
- Tincture

Delivery time On Request



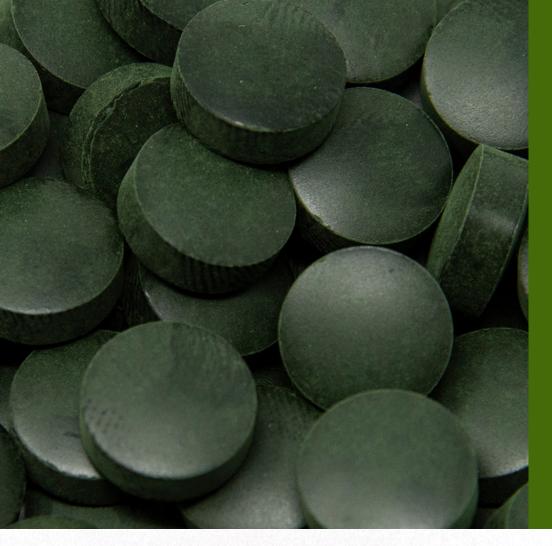


#### Typical applications in the cosmetics industry

The liquid form of phycocyanin is marketed as the original product of unparalleled purity. Phycocyanin is the famous blue pigment of Spirulina algae. The natural, watersoluble antioxidant has an intense blue color, which is popularly used in cosmetics as a coloring and functional component. Thus, the substance contained in spirulina determines a long-lasting green-blue coloration in cosmetic formulas such as lotions.

Due to its antioxidant potential, it is an effective radical fighter. In addition, various studies show that phycocyanin has anti-inflammatory properties and promotes healthy skin appearance.

It also contributes to wound healing and tissue regeneration. The antimicrobial and anti-inflammatory effect of phycocyanin liquid form supports the healing process in acute skin problems.



Tablets

# **SPIRULINA PLATENSIS**



- Protein 60 %
- Phycocyanin 17-20 %

Delivery time On Request





- Spirulina is used as a dietary supplement
- Due to the tablet form the dosage is easy and the oral intake is unproblematic

Capsules

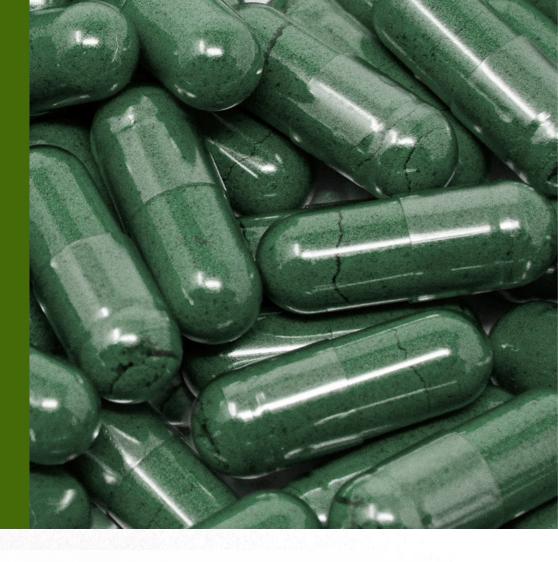
# **SPIRULNA PLATENSIS**



- Protein 60 %
- Phycocyanin 12 20 %

Delivery time 3-7 weeks







- Spirulina is used as a food supplement and foodstuff.
- The capsule is suitable for easy oral absorption or can be integrated into recipes by opening it.



## **SPIRULINA PLATENSIS**









- organic
- Phycocyanin 11 15 %

Delivery time 3-7 weeks







## Typical applications in the cosmetics industry

Spirulina platensis has strong antioxidant properties and can therefore be used well for cosmetic applications. In addition, it promotes wound healing, making it particularly suitable for wound dressings, sunburns and anti-photoaging.

Spirulina platensis can reduce itching and dryness of the skin, moderates irritation, stimulates metabolism from a cellular level and inhibits the formation of acne with fewer side effects and without antibiotic resistance.

The phycocyanin and enzymes contained in Spirulina platensis provide the ability of the microalga to collect free radicals. Due to this, Spirulina microalgae is a promising natural raw material in the cosmetics industry, especially since it provides valuable effects such as antioxidant as well as antimicrobial activities.

## **ULVA INTESTINALIS**









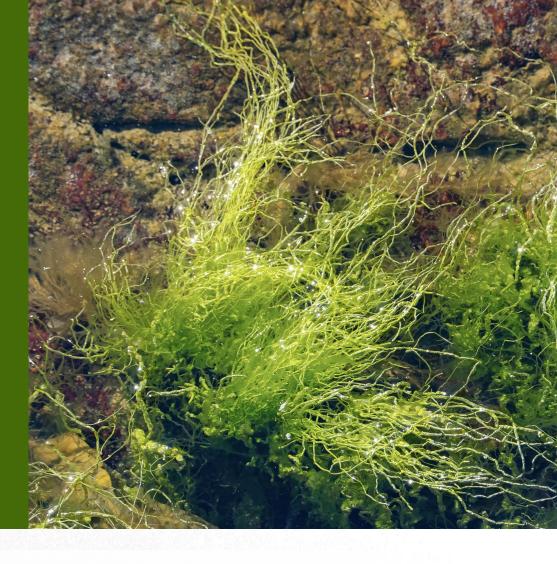


- Calcium
- Magnesium
- Protein
- Iron
- Iodine

Delivery time On Demand









# Typical applications in the cosmetics industry

Green algae Ulva intestinalis is a rich source of nutrients, proteins and peptides. The extract promotes the production of collagen and hyaluronic acid by human dermal fibroblasts.

Ulva intestinalis has properties that are promising for the cosmetic field. The high content of magnesium, selenium, calcium and iron, as well as the antioxidant, antibiotic, antiviral and antifungal effects provide a variety of positive effects for a better skin appearance.

The moisturizing extract from the macroalgae Ulva intestinalis relaxes and protects the skin from external influences. In addition, the epidermis is kept in good condition.



#### **ULVA RIGIDA**









- Carbohydrate
- Protein
- Phenol
- Lipids
- Chlorophyll
- Carotenoid

Delivery time On request







## Typical applications in the cosmetics industry

Green algae Ulva rigida not only has antioxidant and antibacterial effect, but also has a strong antioxidant activity. Thus, the protein-containing algae provides protection against oxidative stress.

Ulva rigida is rich in ingredients that promote collagen biosynthesis as well as provide moisturizing properties. Skin damage and dry epidermis can thus be alleviated.

# UNDARIA PINNATIFIDA (WAKAME)





- Trace Elemtens: such as Manganese, Sodium and Magnesium
- Vitamin A, C, E and K
- Fucoidan for hydration and plumping of the skin
- Fucoxanthin as an agent to help regulate weight

Delivery time
On request









#### Typical applications

Undaria pinnatifida, also known as "Wakame" is probably best known as green seaweed salad and soup, which is widely used in Japanese and Korean cuisine. Wakame also has another positive aspect, due to the fucoxanthin it contains, it can be used as an active ingredient for weight reduction. Wakame also contains many different trace elements and vitamins.

Like many other types of algae, Undaria pinnatifida is very good for the skin and is therefore ideally suited for natural cosmetics. Due to its wide range of ingredients, Wakame offers an antioxidant effect that protects the skin from external influences and detoxifies it. What makes Wakame special is that it is part of the brown algae and therefore contains a substance called Fucoidan, which hydrates and tightens the skin.

The powder is commonly used for food and dietary supplements.

This product is available in the following forms: Undaria pinnatifida powder, Undaria pinnatifida flakes, Undaria pinnatifida dried raw algae or Undaria pinnatifida fresh algae. This product is also available as a non-organic variant.





Whole

## **ZONARIA TOURNEFORTII**





- Antioxidant
- Antibacterial

Delivery time On Demand





## Typical applications in the cosmetics industry

The brown alga Zonaria tournefortii is used in cosmetics for the production of antiaging agents. In addition, the macroalga has antibacterial and antifungal properties.

Zonaria tournefortii with its antioxidant effect can protect the skin and moisturize it at the same time.

Zonaria tournefortii is rich in pigments that absorb radiation in the blue light spectrum, including carotenoids, phlorotannins and chlorophyll, among others.

