

ODYCEA

Bioinspired active ingredients
Exploring French natural resources



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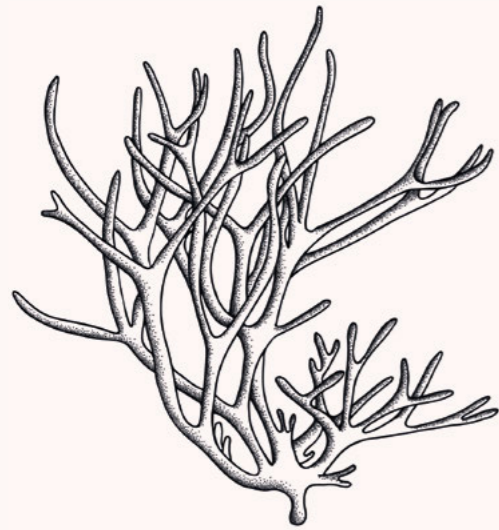
Spring Snow™ by the seaside (Brittany)

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Who we are

Innovative bioactive substances inspired from France's nature secrets, designed with a sustainable and environmentally respectful approach



ODYCEA name refers to "odyssey", reflecting the extraordinary journey of exploring nature, from the deepest oceans to the highest mountains, to unlock its genuine benefits into efficient, sustainable cosmetic substances

An exceptional site

Founded in 2014, ODYCEA is nestled within the enchanting landscape of Lannion Technopole, situated on the idyllic northern coast of Brittany, France.

This location grants ODYCEA access to a mesmerizing prehistoric coastline adorned with France's most ancient rock formations. These legendary landscapes, sculpted over 300 million years ago by ancient magma flows, showcase colossal pink granite formations that have continued to evolve under the relentless embrace of the sea. Just off the coast, the Seven Islands form a pristine archipelago, renowned as one of France's oldest nature reserves. Over a century of dedicated conservation has preserved this unspoiled haven, nurturing a remarkable biodiversity of native plants and seaweed species, while providing a sanctuary for majestic grey seals and seabirds.

A family passion

As a young man driven by a profound passion for the intricacies of algae and plants, Xavier Briand emerged as a trailblazer in the realm of cutting-edge active ingredients for the cosmetic industry. Armed with a dual PhD in fine chemistry and plant physiology, Xavier's journey led him to play a pivotal role in establishing the Center for the Study and Development of Algae (CEVA) in Pleubian, Côtes d'Armor. Remarkably, he assumed the helm of all research programs at a mere 24 years of age, showcasing an extraordinary commitment to the field.

By the age of 29, deeply convinced of the immense potential of marine active ingredients in the cosmetics arena, Xavier ventured into the Roullier Group, where he established the subsidiary Biotechmarines. Serving as its CEO for an impressive 25 years, he steered the company's course until its acquisition by the Air Liquide Group in 2013.

In heartfelt tribute to her father's remarkable legacy, Fidji Briand embarked on a mission to follow in his footsteps and perpetuate his unparalleled expertise. Armed with a dual master's degree from Grenoble Business School, encompassing a Master's in Management and specialized expertise in the management of luxury brands, fashion, and design, Fidji's professional journey unfolded with collaborations alongside international giants like LVMH, L'Oréal, and Clarins.

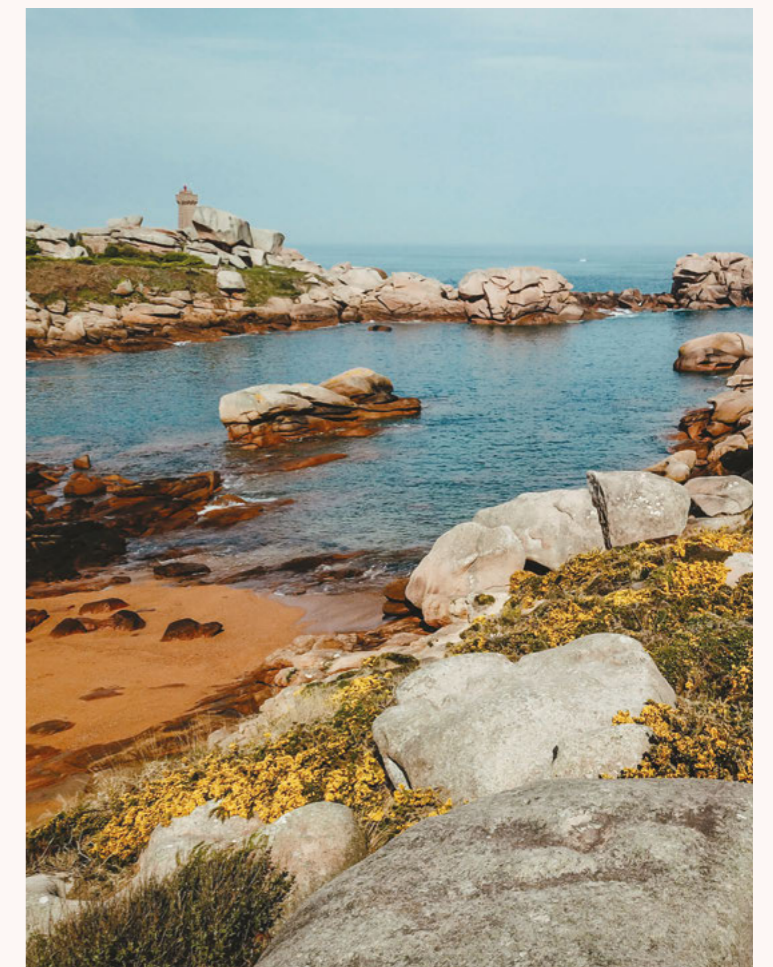
Driven by a fervent commitment to innovation in bioactive substances for cosmetics, she embarked on her entrepreneurial path, birthing the visionary venture known as Odycea.



Xavier Briand has conducted research on seaweeds since 1989



A family passion for exploring nature's treasures



Brittany, the Pink Granite Coast



Garden by the sea

A continuous source of bioinspiration
for better innovation



Born from the passion and inspiration of a visionary man, Xavier Briand, the Garden by the Sea was established in 1986. A true open-air laboratory composed of treasures from the plant kingdom, Xavier aimed to create a unique space where the observation of plants could lead to new discoveries, all while placing environmental preservation at the heart of his mission.

Comprising over 300 carefully selected plants spread across 4,500 m², our garden is nestled between land and sea, within a unique Breton microclimate that fosters exceptional biodiversity. This microclimate, sheltered from strong winds by the natural configuration of its surroundings, creates a peaceful haven conducive to the establishment of a wide variety of plant species from different regions of the world, meticulously chosen for their scientific properties, ranging from bioactive compounds to their potential therapeutic effects. Each variety unveils its story and benefits, enriching our knowledge of the use of plants in health and well-being.

The scientific garden is a true gateway to nature, providing our ODYCEA laboratory with direct contact with the environment. By integrating this garden into our infrastructure, we have created a space where observation and experimentation can merge. This immersion allows us to deeply understand the behavior and needs of plants, which is essential for the development of our active ingredients.

This garden is not merely a reservoir of biodiversity; it also serves as an essential tool and source of inspiration in the design of our products. Interaction with plants and their natural environment stimulates the creativity of our research team, enabling us to find innovative and sustainable solutions. For example, observations of the adaptive properties of plants within this unique microclimate can lead to discoveries regarding particularly effective active ingredients for various applications.

The garden acts as a living laboratory, where each season brings new lessons and discoveries. The inherent changes of natural cycles compel us to observe, adjust our methods, and constantly innovate.

We have also established research themes directly derived from the data collected in this garden, allowing for concrete case studies and patent filings. This real-world approach strengthens our credibility and our position among leaders in plant innovation.

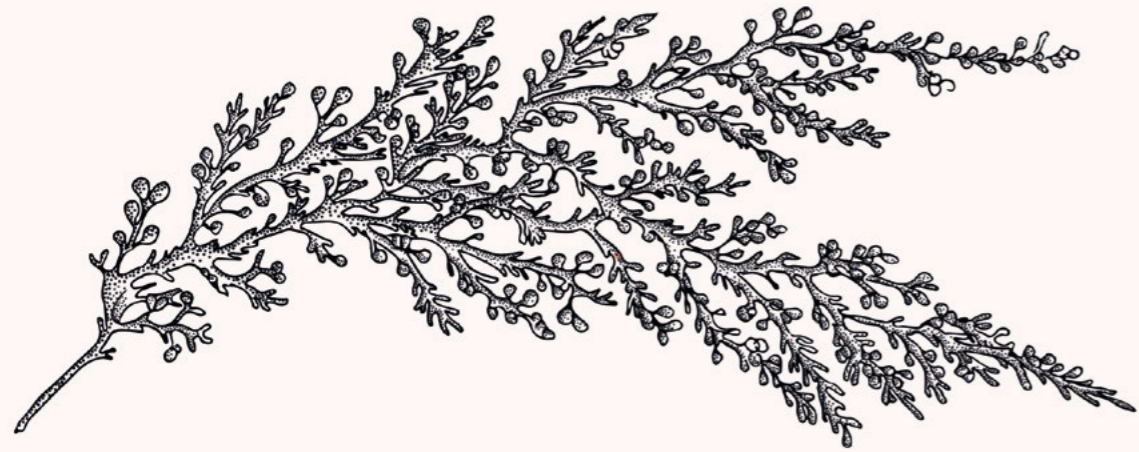


Garden by the sea

Bioinspired and innovative
active substances
for skin and hair beauty



Pioneering research



Phytochemical identification

Through close partnerships with public research organizations and leading specialists, ODYCEA aims to identify biologically active fractions or substances in plants and to harness their power following the 6 principles of the eco-extraction chart.

This research for active ingredients is based on plant species from unique or extreme ecosystems from France. Substances are then characterized using advanced chromatographic coupling techniques with mass spectrometry (LC-MS or GC-MS) or nuclear paramagnetic resonance (NMR). Once the pharmacological profile of the active molecules is established, we select only the species with the highest potential for improved skin health.

Pharmacological exploration

In close collaboration with leading experts, ODYCEA draws upon the latest technological advances in molecular biology, genomics and proteomics. This is combined with our own in depth study, exploring biological skin mechanisms to validate originality and efficacy. We carry out cellular or tissue studies using microscopy, flow cytometry, biochemistry, immunostaining and histology techniques.

This research makes it possible to characterize the pharmacological profile and the mechanism of action of these active substances as well as to identify new dermatological targets.

Skin intelligence

ODYCEA draws upon the latest technological advances in molecular biology, genomics and proteomics. We also partners with leading laboratories in the field of dermatological research whose expertise is unrivaled in the industry. We use the latest innovations in hi-tech equipment, particularly in the fields of imaging, biometrics and skin bio-engineering to validate the efficacy of our actives, including clinical scoring as appropriate.

Our main research areas include: well aging, multi-light protection, the influence of environmental stresses, cutaneous structure, abnormalities in barrier function, sebaceous hypersecretion, inflammation, neurogenic inflammation and pigmentation.





Commitments

All our bioactive ingredients are:

- Bioinspired active ingredients
- Sourced, developed and manufactured in France
- Sustainably-processed



Sustainable French sourcing



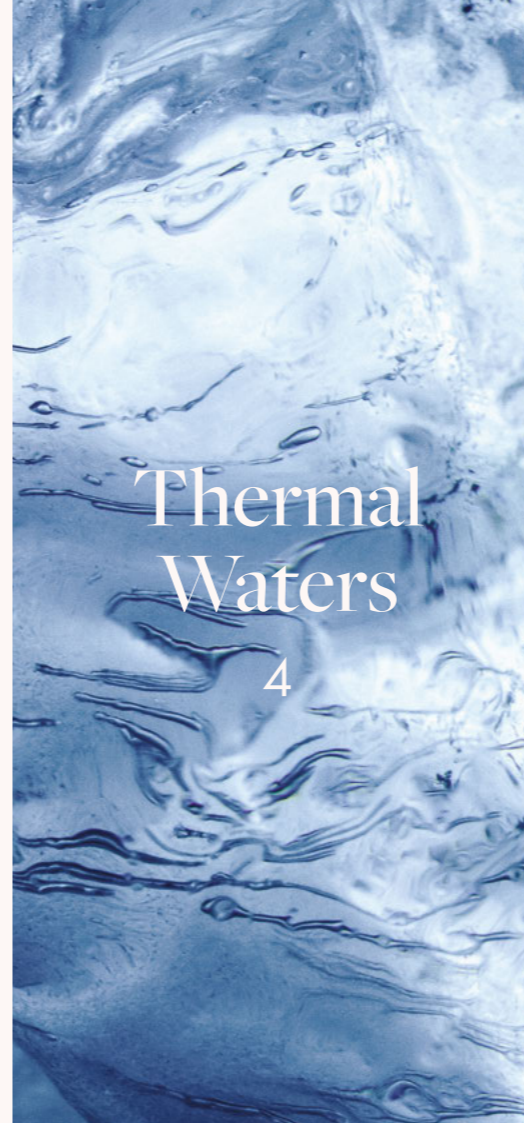
Algae
1



Flowers
2



Honey
3



Thermal
Waters
4



Algal
Waters
5



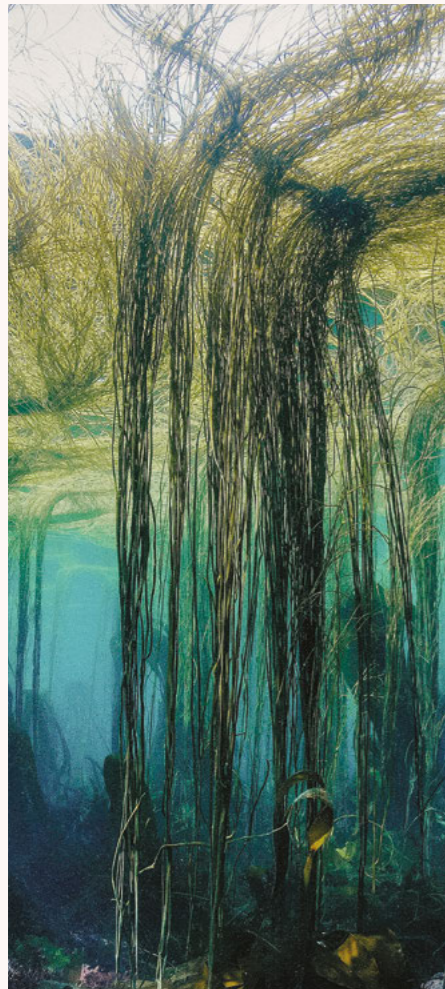
Sea Salt
6



Skin care bioactive ingredients



SKIN ACTIVES	OIL-SOLUBLE LIQUID			WATER-SOLUBLE LIQUID											DISPERSIBLE POWDER	SOLUBLE POWDER
	Seaweeds		Marine Plants	Seaweeds				Seashore flowers		Black bee honey	Waters				Micro-alga	Seasalt
	Marine Bamboo TG®	Borealg TG	Sea Blossom™	Opal Alga GW™	Jade Alga PF™	Pearl Alga™	Sealift PF®	Spring Snow™	Pink Nectar®	Sea Honey®	Bubbling Thermal Water	Plankton Thermal Water	Glacier Thermal Water	Floralg Water PF®	Plankton Glass Flower®	Flower of sun & Provence crystal
Hydration				•	•		•	•			•	•	•	•		
Anti-aging	•	•		•	•		•		•							
Lifting				•			•									
Firming effect	•			•			•									
Antioxidant			•			•		•	•		•					
Brightening								•								
Even skin tone								•								
Anti-dark spots								•								
Anti-pollution			•			•	•	•		•		•				
UV damage protection	•							•	•							
IRA protection	•															
Blue light protection	•															
Barrier Strengthening								•	•				•	•	•	•
Soothing		•	•	•		•		•		•		•				
Neuro-soothing								•								
Anti-redness		•		•				•								
Sensitive/Reactive skin		•	•	•		•		•	•	•		•				
Anti-inflammatory			•	•		•		•		•		•				•
Repair		•									•					
Anti-dark circles				•												
Anti-fatigue				•												
Oily skin						•								•		
Mattifying														•		
Pore-Minimizing						•										
Anti-imperfection					•	•										
Soft focus														•		
Microbiome/Biofilm regulation						•			•							
Microbiome/Anti-bacterial adhesion					•											
Physical peeling																•
Chemical peeling					•											
Enzymatic peeling					•				•							
Skin texture improvement					•	•										
Water replacement											•	•	•	•		
Makeup	•	•	•	•	•	•	•	•	•	•				•		
Suncare	•							•						•		



Marine Bamboo[®] TG

PATENT

Oil-soluble bamboo seaweed extract to protect against photoaging (UV, blue light, IR)

Anti-aging – Global light protection

Consumer benefits (in vivo results)

+16%	+26%
Skin firmness	Skin tonicity
+90%	+80%
Reduction of signs of aging	Skin suppleness (self-evaluation)



Active compound(s): Fucosterol
 INCI: Caprylic/Capric triglycerides (and) Himanthalia elongata extract
 RSPO-certified triglycerides (MB grade)
 Organic certified alga from Brittany, France
 Oil-soluble liquid
 Use level: 1-3%

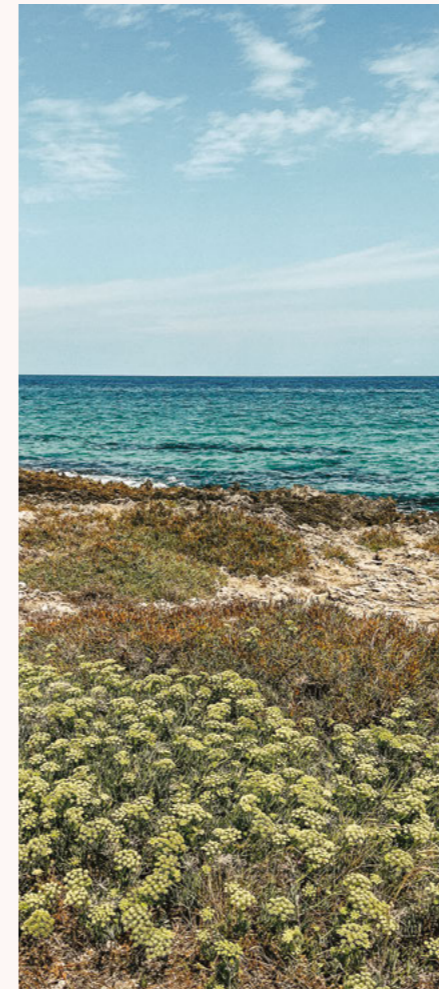


Mechanism of action

- Restores the contractile forces of fibroblasts altered by blue light irradiation
- Regulates MMP-1 overproduction induced by blue light and chronological aging
- Stimulates Elastin gene expression

Bioinspiration: In the ocean, the orange-red and green radiations from the visible light, are quickly absorbed just few meters in depth whereas blue penetrates in depth. Thanks to its unique defense system against oxidative blue light, *Himanthalia elongata* is among the only seaweeds able to grow in the deep blue ocean.

Sustainable harvesting: *Himanthalia elongata* harvest is realized by gathering by hand all individuals longer than 80 cm. The fronds were cut at least 10 cm from the base. Harvesting is only limited to one third of the biomass with harvesting rotation every 2 years.



Sea Blossom[™]

Oil-soluble sea fennel extract to protect skin from the exposome

Soothing – Anti-pollution

Mechanism of action

- Improves cell viability and mitochondrial activity for re-energized cells
- Downregulates irritation-induced pro-inflammatory IL-1 release
- Downregulates oxidative damage caused by pollution



Active compound(s): Unsaponifiable fraction
 INCI: Caprylic/Capric triglyceride (and) Crithmum maritimum extract
 RSPO-certified triglycerides (MB grade)
 Organic certified plant from Brittany, France
 Oil-soluble liquid
 Use level: 1-3%

Bioinspiration: *Crithmum maritimum*, a remarkable halophyte species able to thrive in challenging high-salinity conditions, showcasing its strength through its long, powerful roots that penetrate deep into the finest crevices of rocky surfaces, earning it the nickname "stone breaker." Since ancient times, it has been renowned for its medicinal properties including soothing properties.

Sustainable harvesting: *Crithmum maritimum* is carefully cultivated and each harvest is conducted by hand to ensure the highest quality. Our commitment to sustainability means that the plants are fully restored each year, allowing for a continuous cycle of growth and renewal.



Borealg TG

Oil-soluble everlasting seaweed extract to repair skin

Anti-aging – Skin repair and regeneration – Soothing

Consumer benefits (in vivo results)

-10%	+68%	+79%
Skin redness	Skin regeneration (self-evaluation)	Skin nourishing (self-evaluation)



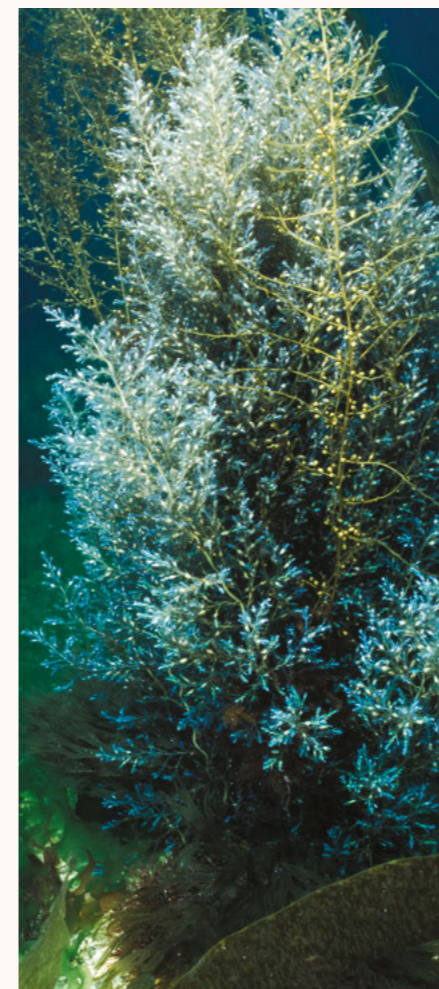
Active compound(s): Unsaponifiable fraction
 INCI: Caprylic/Capric triglycerides (and) Laminaria hyperborea extract
 RSPO-certified triglycerides (MB grade)
 Organic certified alga from Brittany, France
 Oil-soluble liquid
 Use level: 1-3%

Mechanism of action

- Stimulates key genes involved in skin repair and regeneration (Leptin, FABP3, Cyclin D1)
- Improves cell viability and mitochondrial activity for re-energized cells

Bioinspiration: *Laminaria hyperborea* has the ability to challenge the damaging power of the winter waves in Brittany. This exceptional performance is achieved by its biochemical arsenal capable of promoting wound healing and the regeneration of its blade injuries provoked by the wave's aggressions. For this reason, it is part of the longest lived alga species with a lifespan of 10 to 20 years.

Sustainable harvesting: During high tide events, *Laminaria hyperborea* is accessible by foot from the rocky shore and is cut by hand. We do not move or turn over the rocks not to disturb their growth and surrounding environment. We meticulously leave a significant portion of the algae in place to ensure their reproduction. This sustainable practice promotes the regrowth of new algae for the following year.



Opal Alga[™] GW

PATENT

Opal seaweed extract to reduce the signs of fatigue with a 3-in-1 action for a rested eye contour

Anti-fatigue – Anti-dark circles – Eye contour lifting – Deep hydration

Consumer benefits (in vivo results)

-38%	+6%
Under-eye red blood cell concentration (vs placebo)	Attenuation in dark circles color
+17%	+29%
Skin firmness	Moisturized skin



Active compound(s): Total polyphenols expressed in phloroglucinol and mannitol
 INCI: Glycerin (and) Aqua/Water (and) Cystoseira tamariscifolia extract
 Organic certified alga from Brittany, France
 Water-soluble liquid
 Use level: 1-3%

Mechanism of action

- Resynchronizes natural circadian cell rhythm (opsin and clock genes)
- Reinforces vascular barrier and integrity for improved microcirculation
- Downregulates angiogenesis
- Activates cell metabolism (hyaluronic synthesis)

Bioinspiration: *Cystoseira tamariscifolia* is the only alga to have developed a distinctive adaptation mechanism to adjust and regulate its activities in response to sunlight intensity variations induced by tidal water depth cycle. When the tide is low, *Cystoseira tamariscifolia* is submerged in a small amount of water and exposed to strong light. To protect, it uses powerful active compounds to prevent damage.

Sustainable harvesting: We conduct wild hand-picked harvests in carefully selected abundant areas, ensuring that we leave a substantial portion of the algae intact to promote their reproduction. This sustainable practice not only supports the health of the ecosystem but also encourages the regrowth of new algae for the following year.



Jade Alga™ PF

PATENT

Marine hyaluronic acid from upcycled green seaweeds
Anti-aging – Chemical and enzymatic peelings – Microbiome balance

Consumer benefits (in vivo results)

+8%	-67%	+20%
Cellular cohesion	Intercellular spaces	Moisturizing effect
+24%	+90%	-6%
Peeling effect	Silky feeling (softness) (self-evaluation)	Wrinkles maximum relief amplitude

- Provides gentle soft chemical peeling due to its Marine Beta Hydroxy Acid (BHA) content
- Provides gentle soft enzymatic peeling: Kallikrein-7 (KLK7) gene activation
- Inhibits the adhesion of the virulent strain *C.acnes* (phylogroup IA1) for a balanced microbiome



Active compound(s): Native ulvan

INCI: Aqua/Water (and) Hydrolyzed ulva lactuca extract (and) Pentylene glycol

Organic certified alga from Brittany, France
Water-soluble liquid
Use level: 1-3%



Mechanism of action

- Skin Shape Memory: stimulates key genes and proteins involved in skin flexibility, suppleness and resistance
- Downregulates oxidative stress caused by pollutants (HO-1)
- Attracts and holds water

Bioinspiration: *Ulva armoricana* is very affected by the low and high tide occurring every 6 hours in Brittany. Native Ulvans act as a « Shape Memory » program able to face repeated cell contractions and expansions without any damage. This unique regulation system is only observed with *Ulva armoricana*.

Sustainable harvesting: In various bays of Brittany, green tides have emerged. These blooms are a sign of nutrient enrichment due to the leaching of fertilized soil. The problem arises when during the summer time, the stranded *Ulva lactuca* decomposes in large drifts creating pollution. By sourcing *Ulva lactuca* in open sea before washing up, we valorize this seaweed and contribute to avoid its excessive accumulation on beaches.



Sealift® PF

Synergistic red alga extract complex as a natural filmogene protective shield

Immediate lifting – Shield and detox effects against pollution – Moisturizing shield

Consumer benefits (in vivo results)

-5%	-6%	+73%
Wrinkle average relief	Wrinkle maximum relief amplitude	Immediate tensor effect (self evaluation)
+20%	-62%	-36%
Moisturizing effect after 8 hours	Adhesion of pollutants on skin	Pollutants after rinsing



Active compound(s): Sulfated galactans

INCI: Aqua/Water (and) Chondrus crispus extract (and) Gigartina stellata extract (and) Pentylene glycol

Organic certified alga (*Gigartina stellata*) from Brittany, France
Water-soluble liquid
Use level: from 2%

Mechanism of action

- Binds to skin proteins such as keratin to provide a non-occlusive second skin effect with a lifting action
- Anti-pollution and moisturizing effects
- Reduces the interaction between pollutants and skin
- Acts as a shield against dehydration

Bioinspiration: *Gigartina stellata* is the most affected alga by tides phenomenon as it grows at the upper level of seashore. Thanks to the sulfated galactans, it is able to tolerate extreme changes in temperature, salinity, moisture and wave action to survive. Their powerful skin properties have been potentialized by the combination with *Chondrus crispus* in Sealift PF.

Sustainable harvesting: Algae are harvested by hand, and we meticulously leave a portion of the algae in place to ensure their reproduction. This sustainable practice promotes the regrowth of new algae for the following year.



Pearl Alga™

PATENT

Upcycled brown sargassum extract to rebalance urban acne-prone skin
Microbiome balance – Anti-pollution – Soothing – Pore minimizer

Consumer benefits (in vivo results)

-12%	-5%	-12%
Density of pores	Pore diameter	Pore surface
-12%		+9%
Number of spots	Skin surface evenness	



Active compound(s): Marine polyols

INCI: Propanediol (and) Aqua/Water (and) Sargassum muticum extract

Organic alga from Brittany, France
Water-soluble liquid
Use level: 1-3%

Mechanism of action

- Inhibits biofilm formation of the virulence strain *C.acnes* (phylogroup IA1) for a balanced microbiome and an ultra-calming effect
- Protects from oxidative damage induced by pollutants
- Protects skin from irritation and inflammation

Bioinspiration: In the ocean, algae are affected by a phenomenon called biofouling, which involves a wide range of undesirable organisms that attach to and adhere to macroalgae, leading to biodeterioration. However, *Sargassum muticum* is not affected by this phenomenon due to its unique collection of substances with astringent, antibacterial, and antifungal properties.

Sustainable harvesting: Odycea has recognized the pressing issue posed by invasive algae, which can rapidly proliferate through vegetative reproduction; a single fragment of these algae can give rise to a new seedling. These invasive species consume essential resources such as light and nutrients, leaving little room for the endemic algae that are vital to the local ecosystem along the Breton coastline. As a result, the imbalance created by these invasive species can lead to a decline in biological diversity. By sourcing and valorizing this algae, Odycea seeks not only to mitigate its impact but also to create a healthier environment where endemic algae can thrive.



Spring Snow™

PATENT

Blackthorn flower extract for flawless skin
Barrier reinforcement – Neuro-soothing – Anti-dark spot

Consumer benefits (in vivo results)

-52%	-97%	-47%
TEWL after irritation	Skin irritation	Skin irritation
-107%		-104%
Skin redness (vs placebo)	Melanin Index (vs placebo)	



Active compound(s): Total polyphenols expressed as rutin equivalent

INCI: Glycerin (and) Aqua/Water (and) Hydrolyzed prunus domestica

Organic certified flowers from Brittany, France
Water-soluble liquid
Use level: 1-3%

Mechanism of action

- Breaks the vicious cycle of barrier defects, neurogenic inflammation and oxidative stress induced by exosome factors
- Reinforces the barrier function in stressful situations (UV irradiation)
- Enhances hydration

Bioinspiration: *Prunus domestica* variety *spinosa*, known as blackthorn, is characterized by its dark grey-brown bark and spines. It grows along the Brittany coast and is one of the first shrubs to bloom in spring, looking like snow. It has developed a dual morphological and biochemical strategy to survive and adapt to the marine climatic conditions of the Brittany coastline.

Sustainable harvesting: Our harvests, conducted on public lands with the authorization of local authorities, respect both ecosystems and current regulations. We only collect the blossoms, promoting a more balanced growth of the blackthorn and contributing to the maintenance of the areas where it is found. The wild blackthorn, though not officially invasive, can become very dense and prolific posing challenges for land management. Through responsible harvesting practices, we help maintain ecological balance and prevent the uncontrolled growth of blackthorn in the affected areas, while preserving the accessibility and usability of natural spaces.



Pink Nectar[®]

PATENT

Seashore heather extract for healthy skin

Microbiome balance – Antioxidant – Barrier reinforcement – Homeostasis – Hydration

Consumer benefits (in vivo results)

+47%	-8%	+71%
Hydration	TEWL	Cell renewal

Mechanism of action

Skin recovery hub™

- Inhibits biofilm formation and activates natural anti-microbial peptides for balanced microbiome
- Boosts natural skin antioxidant defences
- Reinforces the expression of skin barrier markers: cell cornified envelope and lipid metabolism
- Improves skin homeostasis: balance between cellular renewal and desquamation
- Provides immediate and long lasting hydration

Bioinspiration: *Calluna vulgaris* thrives in harsh conditions on cliffs and moorlands along the coastline, making it a extremophilic plant with adaptogenic properties.

Sustainable harvesting: During harvesting, only the flowering tips of the plants are taken to promote denser growth, branching and regeneration in the following seasons. The harvesting is done by hand using a billhook, ensuring full respect for biodiversity. This quiet method helps preserve the local ecosystem.



Active compound(s): Total polyphenols expressed as myricetin equivalent
 INCI: Glycerin (and) Aqua/Water (and) Calluna vulgaris extract
 Organic certified flowers from Brittany, France
 Water-soluble liquid
 Use level: 1-3%



Bubbling Thermal Water

Volcano water

Repair and regeneration – Antioxidant

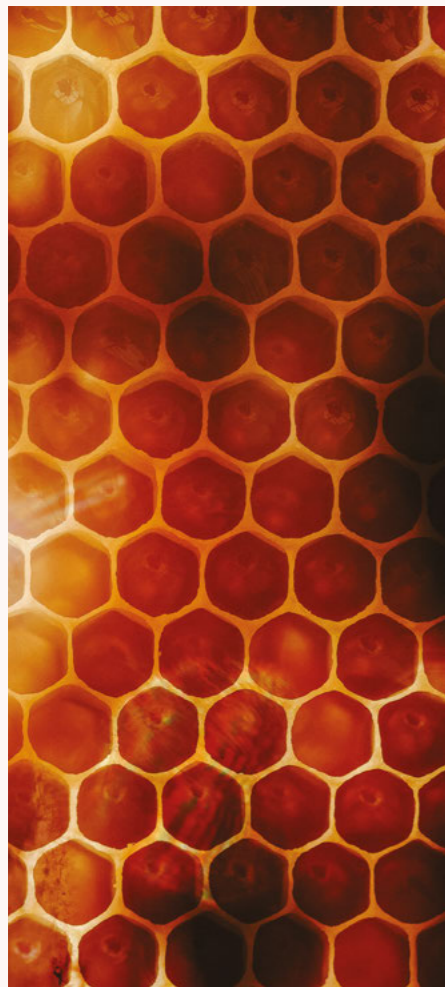
Mechanism of action

- Stimulates key genes involved in skin repair and regeneration
- Improves cell viability and mitochondrial activity for re-energized cells
- Reduces free radicals production



Active compound(s): Calcium & silica
 INCI: Onsen-sui (and) Sodium benzoate (and) Potassium sorbate
 Preservative free grade available on request:
 INCI: Onsen-sui (and) Pentylene glycol
 Warm thermal water from Auvergne region, France
 Water-soluble liquid
 Use level: 1-100%

Bioinspiration: Bubbling thermal water from the heart of the French volcanoes infiltrates up to 2400 meters through a network of microcracks, heating up to nearly 140°C due to the geothermal gradient. After filtering through volcanic rocks, it emerges in the thermal resort. The first thermal resort, “the house of baths,” was established in 1821, attracting patients for its therapeutic benefits. Today, the thermal baths are a leading European destination and the top pediatric station in France for treating eczema and skin allergies.



Sea Honey[®]

Seashore black bees' honey to deeply soothe skin

Soothing – Anti-pollution

Mechanism of action

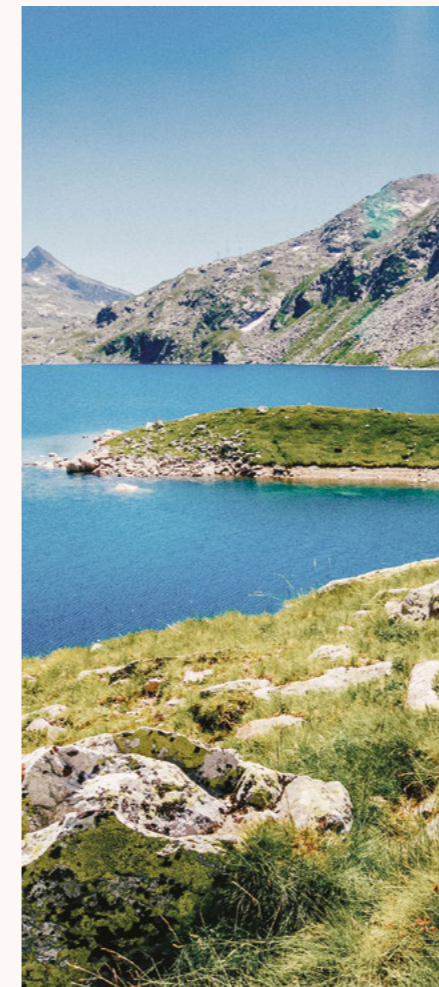
- Acts as a free radical scavenger
- Reduces the inflammatory reaction induced by urban pollution (IL-8 release)



Active compound(s): Flavonoids
 INCI: Glycerin (and) Aqua/Water (and) Honey extract
 Black bees' honey from Brittany, France
 Water-soluble liquid
 Use level: 1-3%

Bioinspiration: Sea honey is a unique product derived from the distinctive traits of Breton black bees and the high quality of the *Calluna vulgaris* nectar they collect. The characteristics and properties of this nectar are influenced by various factors, including the flowers, climate, and temperature. The black bees skillfully transform this nectar into a precious honey, renowned for its numerous health benefits such as its antimicrobial and anti-inflammatory properties. Moreover, honey is widely used in the treatment of burns, including severe cases, due to its effective healing and antibacterial effects.

Sustainable harvesting: By choosing the black bee from Brittany, Odycea brings value to a sustainable agricultural model. Our beekeeper expertise plays a crucial role in the breeding and selection of the black queens to preserve genetic characteristic of a rustic specie particularly well-adapted to flora and weather of a specific region for thousand years. To take part in its protection means that our beekeepers contribute to preserve this specie and the biodiversity richness.



Plankton Thermal Water

Mountain water

Soothing – Anti-pollution

Mechanism of action

- Reduces the inflammatory reaction induced by urban pollution (IL-8 release)
- Strengthens skin, hair and nail through keratin binding



Active compound(s): Silica, selenium and exopolysaccharides
 INCI: Onsen-sui (and) Sodium benzoate (and) Potassium sorbate
 Preservative free grade available on request:
 INCI: Onsen-sui (and) Pentylene glycol
 Warm thermal water from Pyrenees region, France
 Water-soluble liquid
 Use level: 1-100%

Bioinspiration: Plankton Thermal Water is a unique warm water from the French Pyrenees, shaped during glacial erosion about 1 million years ago. Discovered in the 15th century by a farmer who noticed an injured sheep recovering quickly after bathing in a warm pool, it soon became popular among locals. In 1860, Napoleon III built a military hospital and thermal baths for treating war wounds, rheumatism, and skin problems. Today, people can still enjoy the Nave Napoleon III in the thermal baths.



Glacier Thermal Water

Ice water

Barrier reinforcement – Skin homeostasis

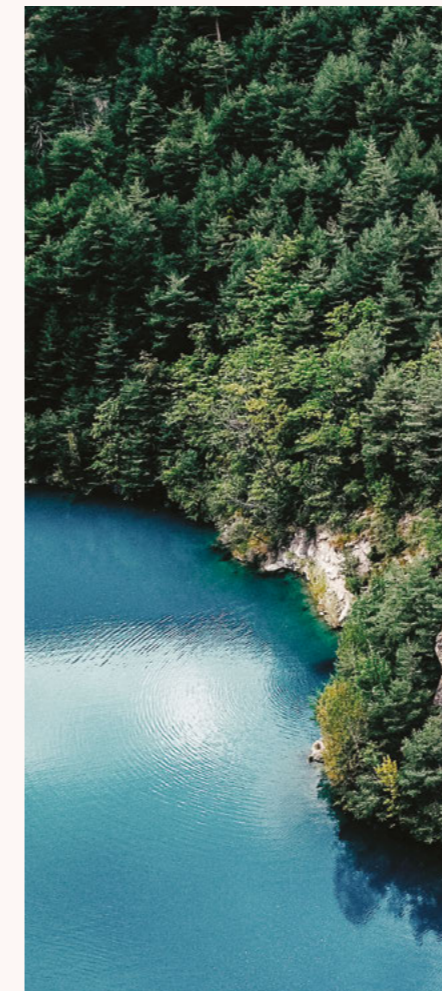
Mechanism of action

- Stimulates Involucrin production involved in formation of skin barrier
- Stimulates Transglutaminase 1 production, key enzyme responsible for the formation of the cell cornified envelope



Active compound(s): Calcium & Magnesium
 INCI: Onsen-sui (and) Sodium benzoate (and) Potassium sorbate
 Preservative free grade available on request:
 INCI: Onsen-sui (and) Pentylene glycol
 Warm thermal water from Alps region, France
 Water-soluble liquid
 Use level: 1-100%

Bioinspiration: Glacier Thermal Water is a unique warm water coming from the heart of Alps mountains. The source is located in a protected and majestic environment. It originated from the waters drops fallen from the sky and the melting of alpine glaciers infiltrated through the rocks. It is particularly rich in calcium and magnesium.



Plankton Glass Flower[®]

PATENT

Phyto-plankton extract from volcanic lakes to protect and mattify skin

Digital shield (blue light) – Natural soft focus – Mattifying

Mechanism of action

- Restores the contractile forces of fibroblasts altered by blue light irradiation
- Regulates MMP-1 overproduction induced by blue light
- High porosity and sebum absorption capacity for mattifying effect
- Natural soft focus



Active compound(s): Micro-algal photonic crystals
 INCI: Plankton extract
 Phyto-plankton from ancient volcanic lakes, France
 Dispersible powder in both oil and water
 Use level: 0.5-3%

Bioinspiration: Living in the clear water of high mountain lakes where the UV and blue light pressure was particularly intense, Plankton Glass Flower adapted to protect from these harmful stresses. Indeed, Odycea discovered that specific species of plankton created a smart shield around its cell consisting of photonic and porous crystals which looks like a glass flower.

Sustainable harvesting: Plankton Glass Flower is a fully sustainable resource, harvested in accordance with ISO 14001:2004 principles. This international standard provides criteria for an effective environmental management system (EMS), helping organizations improve their environmental performance by identifying and controlling their ecological impacts. It promotes sustainable resource management and compliance with environmental regulations, ultimately reducing negative impacts on the environment.



Floralg Water[®] PF

Upcycled seaweed water

Water replacement in cosmetic formula



Application

- Replaces purified water and increases the naturality and organic rate in all water based formulations



Active compound(s): Dissolved carbon organic substances
 INCI: Palmaria palmata extract (and) Pentylene glycol
 Organic algal water from Brittany, France
 Water-soluble liquid
 Use level: 5-100%



Sustainable process: 100% upcycled algal water derived from the hydro-diffusion process occurring during the slow drying of the red seaweed *Palmaria palmata*, which is used in the production of Galacteane[®] PF.



Flower of sun & Provence crystal

Sea salt from French Provence to remineralize and exfoliate skin

Exfoliating – Skin homeostasis – Soothing

Flower of sun

Very thin layer of sea salt that first appears at the surface of the seawater, also called the flower of salt. It is very rich in magnesium salts
 – Helps soothe inflammation and enhance skin barrier function, making it ideal for sensitive or irritated skin

- When used in scrubs or baths, helps use as a gentle exfoliant, removing dead skin cells and promoting cell renewal.
- Helps in drawing out impurities and toxins from the skin, leaving it feeling refreshed and rejuvenated.



Active compound(s): Rich in minerals
 INCI: Sea salt (Maris sal)
 Sea salt from Mediterranean, France
 Water-soluble liquid
 Use level: 1%-80%

Provence crystal

Layer much thicker and composed of different kind of salts: sodium, magnesium, calcium and potassium salts. It consists of the seawater totally dehydrated

Bioinspiration: Flower of Sun and Provence Crystal has a close connection with the skin, rooted in their shared mineral composition. It is through the interplay of sun, wind, and seawater that the unique mineral-rich salt beneficial for the skin is formed. This salt contains vital elements that play a crucial role in maintaining skin health, hydration, and overall balance.

Sustainable harvesting: Salt cultivation in Provence (southern France) is a natural wonder covering 10,000 hectares that has been treasured for generations. This salt is harvested using traditional methods that honor the environment and its resources. It has helped preserve thousands of hectares of natural land along the Mediterranean coast, maintaining its original ecosystem, which is home to exceptional flora and fauna.



Hair care bioactive ingredients



HAIR ACTIVES	OIL-SOLUBLE LIQUID			WATER-SOLUBLE LIQUID		
	Seaweeds		Seashore flowers	Seaweeds		
	Marine Bamboo TG®	Golden Kelp TH™	Golden Flora TH™	Sea Keratin PF™	Galacteane PF®	Flower of sun & Provence crystal
Nourishing	•	•	•	•		
Lipid replenishment	•	•	•			
Keratin replenishment				•		
Reparation	•			•		
Fortifying	•	•	•	•	•	
Antioxidant	•	•	•	•		
Protection against coloration-induced stress		•	•			
Protection against repeated washing	•					
Protection against pollution					•	
Heat protection			•	•		
Anti-frizz	•	•	•	•	•	
Anti-porosity		•	•			
Anti-roughness		•	•	•		
Conditioning / sheathing					•	
Scalp exfoliating						•



Marine Bamboo[®] TG

PATENT

Oil-soluble bamboo seaweed extract for healthy hair

Antioxidant – Lipid replenishment (strengthen, repair and protect) – Global light protection

Consumer benefits (*in vivo results*)

x4
Lipid incorporation
in hair scales and cortex

Mechanism of action

- Antioxidant protection
- Lipid replenishment to protect hair fiber, reinforces the lipid barrier and preserves hair moisture
- Helps protect hair from light-induced oxidative damage



Active compound(s): Fucosterol
INCI: Caprylic/Capric triglycerides (and) *Himantalia elongata* extract
RSPO-certified triglycerides (MB grade)
Organic alga from Brittany, France
Oil-soluble liquid
Use level: 1-3%



Bioinspiration: In the ocean, the orange-red and green radiations from the visible light, are quickly absorbed just few meters in depth whereas blue penetrates in depth. Thanks to its unique defense system against oxidative blue light, *Himantalia elongata* is among the only seaweeds able to grow in the deep blue ocean. In addition, the fronds of *Himantalia elongata* are long and flexible like healthy hair. They move with the current of the water, mimicking the gentle and fluid motion of hair dancing in the wind.

Sustainable harvesting: *Himantalia elongata* harvest is realized by gathering by hand all individuals longer than 80 cm. The fronds are cut at least 10 cm from the mushroom-like base. Harvesting is only limited to one third of the biomass with harvesting rotation every 2 years maintaining its original ecosystem with exceptional flora and fauna.



Golden Flora[™] TH

PATENT

Oil-soluble golden gorse extract from the seashore for soft and shiny hair

Protecting (Dye, Heat) – Smoothing – Anti-frizz

Consumer benefits (*in vivo results*)

-56%	-53%	-34%
Hair oxidative damage	Hair porosity	Hair roughness
+60%	+21%	+14%
Hair Stiffness (Young's Modulus)	Hair Resistance (Break Stress)	Hair Elasticity (Break Extension)

Mechanism of action

- Preserves against keratin carbonylation
- Reduces hair porosity and maintains fiber integrity
- Tightens the cuticle without affecting color enhancement
- Protective effects against heat damage

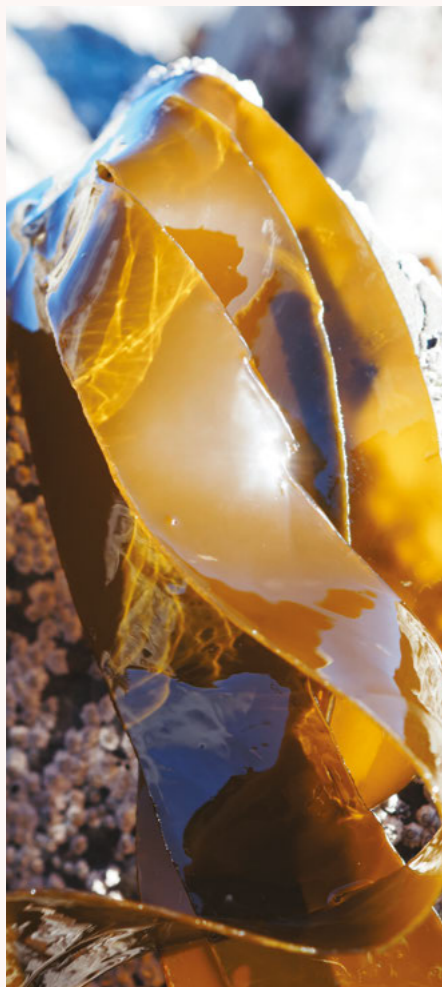
- Reinforces hair stiffness and structure
- Enhances resistance to breakage
- Improves elasticity and flexibility



Active compound(s): Unsaponifiable fraction
INCI: *Ulex europaeus* leaf/root/stem extract (and) Triheptanoin
Organic plant from Brittany, France
Oil-soluble liquid
Use level: 1-3%

Bioinspiration: The gorse-covered moors, with their vibrant yellow flowers, are an iconic feature of the Breton landscape. They are adapted to the extreme coastline conditions. It strengthens and protects the hair from external aggressions, just as it withstands the elements, preserving the natural beauty of your locks.

Sustainable harvesting: Our harvests, conducted on public lands with the authorization of local authorities, respect both ecosystems and current regulations. We only collect the blossoms, promoting a more balanced growth of the *Ulex* and contributing to the maintenance of the areas where it is found. Gorse can become very dense and prolix posing challenges for land management. Through responsible harvesting practices, we help maintain ecological balance and prevent the uncontrolled growth of gorse in the affected areas, while preserving the accessibility and usability of natural spaces.



Golden Kelp[™] TH

PATENT

Oil-soluble gold seaweed extract to protect hair from exosome-induced stress

Protecting – Smoothing – Anti-frizz – Color – Shine

Consumer benefits (*in vivo results*)

-47%	-41%	-34%
Hair oxidative damage	Hair porosity	Hair roughness
+89%	+53%	+23%
Hair Stiffness (Young's Modulus)	Hair Resistance (Break Stress)	Hair Elasticity (Break Extension)

Mechanism of action

- Preserves against keratin carbonylation
- Reduces hair porosity and maintains fiber integrity
- Tightens the cuticle without affecting color enhancement



Active compound(s): Unsaponifiable fraction
INCI: *Laminaria ochroleuca* extract (and) Triheptanoin
RSPO-certified triglycerides (MB grade)
Organic plant from Brittany, France
Oil-soluble liquid
Use level: 1-3%

Bioinspiration: *Laminaria ochroleuca*, known as golden algae, gets its name from the Latin word "lamina," meaning blade, and the Greek words "ochros," meaning ocher or gold, and "leucos," meaning shining. Its distinctive golden color sets it apart from other kelp species that may have darker hues. Golden Kelp[™] TH is beneficial for healthy hair, providing similar highlights to those found in the algae itself.

Sustainable harvesting: During high tide events, *Laminaria ochroleuca* is accessible by foot from the shore and is cut by hand. It is brought ashore with boats that have been grounded at low tide. To ensure the renewal of the fields, it is also important not to move or turn over the rocks. Finally 30-40% of the resource is retained on-site.



Sea Keratin[™] PF

PATENT

Upcycled *Enteromorpha compressa* extract for color and thermoprotection

Repairing – Smoothing – Anti-frizz – Color – Shine

Consumer benefits (*in vivo results*)

-27%	-8%	-25%
Hair oxidative damage	Hair porosity	Hair roughness
+89%	+53%	+23%
Hair Stiffness (Young's Modulus)	Hair Resistance (Break Stress)	Hair Elasticity (Break Extension)

Mechanism of action

- Repairs keratin carbonylation
- Repairs hair damaged by coloring
- Reduces hair porosity and maintains fiber integrity
- Repair hair oxidized by dye
- Protective effects against heat damage
- Reinforces hair stiffness and structure
- Enhances resistance to breakage
- Improves elasticity and flexibility



Active compound(s): Hydrolyzed protein
INCI: Hydrolyzed *Enteromorpha compressa* (and) Hydrolyzed vegetable protein (and) Aqua/Water (and) Pentylene glycol
Organic plant from Brittany, France
Water-soluble liquid
Use level: 1-3%

Bioinspiration: With a composition of amino acids very close to those naturally present in keratins, Sea Keratin[™] PF fills and strengthens the hair structure to protect hair against the harsh effects of the hair exosome.

Sustainable harvesting: *Enteromorpha* species is harvested manually, and done when the alga is still submerged. Agreements are made with oyster farmers for the collection of *Enteromorpha* growing on their oyster bags, which need to be removed to allow for proper water circulation for oyster growth.



Galacteane® PF

Synergistic red alga extract complex for instant sea-licon (silicon) like effect

Conditioning – Hair detox – Anti-frizz

Consumer benefits (in vivo results)

-98%	+27%	+22%
Pollution adhesion	Hair scales more joined	Edge of hair scales more regular

Mechanism of action

– Binds to hair proteins such as keratin to provide a protective film on the hair fiber



Active compound(s): Sulfated galactans
 INCI: Aqua/Water (and) Palmaria palmata extract (and) Chondrus crispus extract (and) Pentylene glycol
 Organic certified alga (*Palmaria palmata*) from Brittany, France
 Water-soluble liquid
 Use level: from 2%

Bioinspiration: The striking ruby color red alga *Palmaria palmata* is also known as "Dulse," a name derived from the Latin word "dulce," which reflects its soft and silky texture. These specific organoleptic properties are due the presence of some polysaccharides such as sulfated galactans. Their powerful hair properties have been potentialized by the combination with *Chondrus crispus* in Galacteane® PF.

Sustainable harvesting: *Palmaria palmata* are harvested manually, ensuring that the basal disc and parts of the frond are left behind to guarantee regeneration. To achieve this, it is important not to completely harvest each alga, preserving the holdfast and a portion of each seaweed. Likewise, some seaweeds should be left in place to promote their reproduction, which will allow for the growth of new seaweeds the following year.



Flower of sun & Provence crystal

Sea salt crystals for healthy scalp

Exfoliating – Skin homeostasis – Soothing effect

Flower of sun

Very thin layer of sea salt that first appears at the surface of the seawater, also called the flower of salt. It is very rich in magnesium salts

– Helps soothe inflammation and enhance scalp barrier function, making it ideal for sensitive or irritated scalp

Provence crystal

Layer much thicker and composed of different kind of salts: sodium, magnesium, calcium and potassium salts. It consists of the seawater totally dehydrated

– When used in scalp scrubs, helps act as a gentle exfoliant, removing dead skin cells and promoting cell renewal.
 – Helps drawing out impurities and toxins from the scalp, leaving it feeling refreshed and rejuvenated.



Active compound(s): Rich in minerals
 INCI: Sea salt (Maris sal)
 Organic sea salt from Mediterranean, France
 Water-soluble liquid
 Use level: 1%-80%

Bioinspiration: Flower of Sun and Provence Crystal has a close connection with the scalp, rooted in their shared mineral composition. It is through the interplay of sun, wind, and seawater that the unique mineral-rich salt beneficial for the scalp is formed. This salt contains vital elements that play a crucial role in maintaining scalp health, hydration, and overall balance.

Sustainable harvesting: Salt cultivation in Provence (southern France) is a natural wonder covering 10,000 hectares that has been treasured for generations. This salt is harvested using traditional methods that honor the environment and its resources. It has helped preserve thousands of hectares of natural land along the Mediterranean coast, maintaining its original ecosystem, which is home to exceptional flora and fauna.

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