



PureSea® Natural, part of the PureSea® range, is a sustainable, nutrient-rich seaweed ingredient that supports six EFSA Health Claims. Harvested from Scotland's pristine Outer Hebrides and produced with proprietary techniques, each batch is DNA authenticated and independently certified for safety, quality and origin.



## PRODUCT PROFILE SHEET

### The PureSea® Brand: Elevating Natural Wellness

PureSea® is the gold-standard seaweed brand. The PureSea® range offers unique, responsibly sourced, natural solutions that can elevate your brands and products with:

- Science-backed benefits
- Six EFSA Health Claims
- Addressing major nutritional deficiencies
- Outstanding provenance and quality
- A unique story and proprietary production
- Proven as higher quality than other sources

**PureSea® Natural is the core product in the range**, being sustainably wild harvested in the pristine Scottish Outer Hebrides, and with proprietary drying and milling. PureSea® Natural delivers wholefood and rich natural and safe sources of iodine and provides numerous advantages, with ease of use in applications such as capsules and powder blends.

**With a global iodine deficiency** of 5 billion people<sup>1</sup> (68% of the global population) and Europe considered an iodine deficient continent, there is a real need for seaweed as the only natural and plant-based source of this essential nutrient that is vital for various aspects of health and wider wellness.

### Why PureSea Natural®

- **PureSea® Natural offers numerous benefits**, across a wide diversity of markets and consumer demographics (Image 1). Iodine is essential at all life stages, being needed for fertility, during pregnancy, for child development, and all through adult life.

Image 1  
PureSea® Health Benefits



- **PureSea® Natural enables six EFSA Approved Health Claims** relating to natural iodine source supporting normal thyroid function, energy yielding metabolism, cognitive health, skin maintenance, functioning of the nervous system and growth in children.

### Product Advantages

- |   |                                                                                                                             |
|---|-----------------------------------------------------------------------------------------------------------------------------|
| ✓ | <b>Nutrient Dense</b><br>Addressing major nutritional deficiencies                                                          |
| ✓ | <b>Six EFSA Claims Allowed</b><br>With only a small inclusion                                                               |
| ✓ | <b>Sustained Release of Iodine</b>                                                                                          |
| ✓ | <b>Multiple Health Benefits backed by Research</b><br>For women's health and all life-stages and lifestyles                 |
| ✓ | <b>Clean Label</b>                                                                                                          |
| ✓ | <b>Transparent Traceability</b>                                                                                             |
| ✓ | <b>Proprietary Production</b>                                                                                               |
| ✓ | <b>Outstanding Provenance &amp; Unique Story</b>                                                                            |
| ✓ | <b>Natural &amp; Vegan</b>                                                                                                  |
| ✓ | <b>Responsibly Harvested and Processed</b><br>See Manufacturing Process and Quality Assurance Sections for more information |
| ✓ | <b>Kosher Certified</b>                                                                                                     |

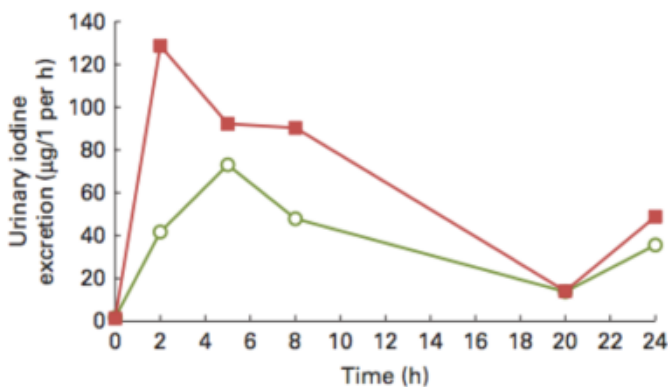


## Research

### Sustained Release of Iodine

Independent research shows that PureSea<sup>®</sup> Natural provides a slower and more sustained release of iodine compared to synthetic sources that are quickly absorbed and quickly excreted.<sup>2</sup>

Graphic 1  
Iodine Release: PureSea<sup>®</sup> Natural vs Synthetic



The graphic displays urinary iodine levels (µg) over time (h) following consumption of PureSea<sup>®</sup> Natural species (green) and Potassium Iodide (red). More information is available in the **Natural is Best** paper, downloadable [here](#).

### Thyroid Health

When the thyroid fails to produce an adequate amount of hormones, often due to insufficient iodine, it results in a condition known as hypothyroidism or an underactive thyroid. Hypothyroidism can manifest with various symptoms, including unwanted weight gain, fatigue, depressive feelings, sensitivity to cold, muscle discomfort, dry skin, and brittle hair and nails.<sup>3</sup> **Iodine is an essential dietary nutrient crucial for maintaining proper thyroid function and the production of thyroid hormones.** More information can be found in the **Thyroid Health Review** Paper which can be downloaded [here](#).

### Fertility

Iodine helps in the synthesis and regulation of **sex hormones** like oestrogen and testosterone which are necessary for reproductive health in both men and women. **In women**, iodine deficiency can disrupt the **menstrual cycle**, leading to irregular periods or even amenorrhea (absence of menstruation).

Iodine is also important for **men's fertility**. Adequate iodine levels can support healthy sperm production and function. For more information, download our **Review** paper [here](#).

### Pregnancy

Iodine is required in higher amounts during pregnancy due to its critical role in foetal neurological development, as deficiency is associated with an increased risk of congenital anomalies, miscarriage and stillbirth.<sup>4</sup> It is important for women of childbearing age, who are planning to conceive in the future, achieve iodine sufficiency as foetal neurological development commences very early in pregnancy.<sup>5</sup> For more information, download our **Pregnancy Review** paper [here](#).

### Energy & Sports Recovery

Thyroid impacts metabolism, which is the effectiveness of how food is turned into energy. Ensuring metabolism is working effectively is key for sports and training. As iodine is excreted in urine and sweat, the more people exercise and drink, the more iodine they lose.

A study<sup>6</sup> showed that, as iodine intake in the diet is not increased for most people when exercising, a group of footballers had lower iodine levels than sedentary people due to the loss of iodine in their urine and sweat. Learn more, download the **Energy & Endurance Review** paper [here](#).

### Mental Health

The brain is highly sensitive to the slightest fluctuations of thyroid hormone, therefore leading to weakness, headaches, fatigue, memory lapses and concentration problems. It is important to maintain optimal levels of Iodine to maximise cognitive potential and boost brain energy.

More broadly an underactive thyroid may lead to symptoms of depression and anxiety.<sup>7</sup> For more information, download our **Cognitive Review** paper [here](#).





## Beauty-from-within

With insufficient iodine that can lead to low thyroid hormone levels, the rate at which hair grows can be reduced and even stop completely. People who have suffered from iodine deficiency disorders have also experienced hair loss. In a study of 700 participants, it was found that 30% of those that presented with low thyroid hormone levels had experienced some form of **hair loss**.<sup>8</sup>

**Nail health** can also be impacted by thyroid issues, with one reason being that a reduced metabolic rate impacts the amount of sweat produced by the body. Sweat plays a role in maintaining the moisture of the skin and nails and, in its absence, can cause them to become dry and brittle. In more extreme cases, a condition known as onycholysis can occur – a condition where the nail becomes separated from the nail bed.<sup>9</sup> Another common symptom of iodine deficiency is dry, flaky skin. This has been attributed to a lowered rate of skin cell regeneration because of lower thyroid hormone levels.<sup>10</sup> In one study, 63% of people with hypothyroidism reported that they were suffering with **dry skin**.<sup>8</sup> Learn more: download the **Inner Beauty Review** paper [here](#).

## Menopause Support

The often-simultaneous transition into hypothyroidism and menopause has led researchers to conclude that there might be a connection between perimenopause and thyroid function.<sup>11</sup> Research carried out on menopausal women with thyroid dysfunction found that there was a marked improvement in the menopause-related symptoms once the thyroid disorder had been treated.<sup>12</sup> These findings suggest that treating thyroid disorders should be first considered when attempting to manage menopause symptoms. Learn more by downloading the **Menopause Review** Paper [here](#).



## Endometriosis Support

It is estimated that approximately 10% of women between 14 and 45 have endometriosis and it goes largely undiagnosed in younger years. Genetics are thought to play a role, as well as weight and the age at which women start their period. However, nutrition undoubtedly plays a role, and particularly when it comes to

iodine. Research<sup>13</sup> has shown that low dietary iodine intake leads to higher oestrogen levels in women, which is known to cause excess growth of endometrial tissue outside the uterus. For more information, download our **Endometriosis Review** paper [here](#).

## Metabolic Health & GLP-1 Support

Metabolic health reflects the body's capacity to regulate energy production and utilization. A central regulator of these processes is the thyroid gland, through the hormones triiodothyronine (T3) and thyroxine (T4). These hormones modulate basal metabolic rate (BMR), oxygen consumption, thermogenesis, and carbohydrate and lipid metabolism at the cellular and systemic levels.<sup>14,15</sup>

As iodine is an essential micronutrient required for the synthesis of T3 and T4, inadequate iodine intake impairs thyroid hormone production, leading to reduced metabolic efficiency. Even mild iodine deficiency can have an impact, and lead to conditions that may remain undiagnosed while still exerting measurable effects on metabolic rate and energy balance.<sup>16,17,18</sup>

Furthermore, as interest grows in GLP-1 focused products that help manage appetite, more brands are searching for **complementary solutions that support nutrition** whilst people are using GLP-1 products, as well as long term, efficient, metabolism support. This is where thyroid health – and PureSea® – play a crucial supporting role. PureSea® offers consistent wholefood nutrition through a natural, clean label, traceable and sustainably sourced seaweed ingredient that have EFSA claims to support thyroid health and metabolism.

## Manufacturing Process

Sourced in **Scottish Outer Hebrides**, renowned for their rich marine environment, PureSea® Natural is wild harvested through responsible managed practices. The best harvesting sites are selected, and the seaweed is cut using specialist vessels and techniques designed to support resource stewardship. PureSea® Natural seaweed is then dried and further processed in dedicated proprietary food-grade facilities. The harvesting is independently licenced and monitored by the Crown Estate.

## Quality Assurance

### Gold Standard Seaweed

Every batch of PureSea® is tested for safety, quality and nutrition. Customers can access transparent online traceability, allowing them to view where each batch was harvested, alongside photographs, maps, certification documents and unique DNA authentication records. **Click [here](#) to see an example or access the Portal [here](#).**

Independent assessment has shown PureSea® to contain higher levels of selected quality markers, including polyphenols and antioxidants, than comparable samples of the same species, while consistently demonstrating lower contaminant levels.

Download our **PureSea® vs others** PDF document in our resource section.



## Certifications

PureSea® is a naturally vegan ingredient and holds Kosher, Organic and Seaweed Source Certified™ certifications.



## Product Safety

Studies published in the British Journal of Nutrition<sup>2</sup> using the PureSea® seaweed species, along with batch testing and other independent studies, demonstrate the effectiveness, bioavailability and gold-standard safety of PureSea®.

## Product Range

| Ingredient | Iodine Content | Grade    | Mesh Size                        |
|------------|----------------|----------|----------------------------------|
| PureSea FG | 650-980 mg/kg  | Powder   | >95% thru 400 micron sieve       |
| PureSea MG | 650-980 mg/kg  | Granules | >95% between 400 to 1500 microns |

Both grades are Organic Certified.

## Product Pack Size

The packaging size for PureSea® Natural is 25kg bags.

## Product Applications

PureSea® Natural grades are suitable for capsules, green powder blends and natural superfood mixes.



## About

SEAWEED & CO.

Seaweed & Co. is the company behind PureSea® and are experts on the production and supply of gold-standard seaweed ingredients. Founded by Dr Craig Rose, with a panel of experts including marine scientists, nutritionists and academics from a variety of disciplines, Seaweed & Co.'s research, and accreditations help deliver high-quality, consistent products with documented provenance, traceability and sustainability practices.

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