Twice the flavour, half the salt!

THE MINERAL SALT www.seagreens.co.uk/mineralsalt

- Voted winner BEST NEW PRODUCT AWARD, CAM Lifestyle magazine, January 2011
- Highly Commended FREE FROM FOOD AWARDS, Antony Worrall Thompson, April 2011
- Voted BEST ORGANIC PRODUCT by readers, Healthy Living magazine, December 2011



The Mineral Salt is a unique 'half & half' combination of Organic seaweed from Seagreens' sustainable harvesting in the Scottish Outer Hebrides, with Soil Association certified sea salt from the Lizard Peninsula in Cornwall, England.

No other natural food has such a complete balance of minerals, trace elements and all the other micronutrients.

Consumers responded enthusiastically to its introduction at food and health shows in the UK and USA: "lovely flavour"; "just as good as salt & pepper"; "fantastic value".

In addition to 3 awards for the product, the Hebridean Seagreens factory won an award for Excellence in Environmental Sustainability in July 2011 from Scottish Natural Heritage and the Scottish Environmental Protection Agency.

In 2010 the factory was recognised by the Crown Estate, winning its Marine Enterprise Award, and Cornish Sea Salt won a Gold Food Award.

Replacing sodium chloride in manufactured foods has been top of Seagreens' research agenda since 2007. Their research, mainly at the Centre for Food Innovation in Sheffield, England, has shown that Seagreens can replace at least 50% of the sodium chloride in manufactured foods.

20% of Seagreens' ingredient sales supports the Seaweed Health Foundation set up in 2010 with food, health and academic partners, with offices in Edinburgh and London.

90g glass jar with shaker screw cap RRP £6.95

Table 1

<u>Typical mineral and trace element profile in 2 grams of unrefined Atlantic sea salt and</u> <u>Seagreens® Organic wrack seaweed</u> (about half a teaspoon)

Nutrient	Salt 1g	Seaweed 1g	Salt + Seawe	<u>ed 2g</u>
Boron	0.001	60.00	60	μg
Calcium	4.10	20.00	24	mg
Chloride/chlorine	628.9	35.00	664	mg
Cobalt	2.00	5.40	7.5	μg
Copper	1.00	0.20	1	μg
Germanium	0.001	390.00	390	μg
Gold	1.00	390.00	391	μg
Iodine	100.00	675.00	775	μg
Iron	284.00	575.00	859	μg
Magnesium	31.20	7.00	38	mg
Manganese	3.00	30.00	33	μg
Molybdenum	7.00	0.65	8	μg
Phosphorus	0.395	1.50	2	mg
Platinum	4.00	0.0005	4	μg
Potassium	6.40	31.00	37.5	mg
Selenium	2.00	0.15	2	μg
Silicon	2.70	1.0	4	mg
Silver	0.031	0.0005	0.03	μg
Sodium	314.20	35.00	349	mg
Sulphur	11.7	30.00	42	mg
Vanadium	6.00	2.30	8	μg
Zinc	1.00µg	130.00µg	131	μg

Table 1 is not comprehensive but illustrates the combination of minerals and trace elements common in salt and seaweed. More than 60 further trace elements are present in salt, from bismuth and cerium to tantalum and zirconium. Most were identified only in the 1970s and their value in human nutrition remains unknown. Sodium in salt is a separate, inorganic element; in seaweed it is a chelated, soluble, colloidal mineral attached to protein ions as an incorporated part of the living organism – a true food form. Dried seaweed also typically also contains protein, carbohydrate, polysaccharides, fibre, fat and 12% moisture. It is high in antioxidants.

Table 2

<u>Typical nutritional profile in 1 gram Seagreens® wrack seaweed</u> (excluding minerals and trace elements)

Vitamins: (µg) A (antioxidant carotenoids beta carotene, fucoxanthin, violaxanthin and chlorophyll) 178, B group (including B12* Cyanocobalamin 0.004, Folic and Folinic acid 0.6, B1 Thiamine 0.3, B2 Riboflavin 7.5, Niacin (anti-pellagra) 20, Pantothenic acid, B6 Pyridoxin, Choline) 8.9, C (antioxidant) 1250, D (Cholecalciferol) 0.01, E (antioxidant) including the complete set of isomers 230, H (Biotin) 0.30 and K (Menadione) 10 **Protein**: (mg) 54

Amino acids: (bound form in mg) Cysteine 0.90, Histidine 0.98, Isoleucine 2.33, Leucine 4.07, Lysine 2.72, Methionine 0.68, Phenylalanine 2.66, Threonine 2.83, Tryptophan trace, Valine 2.96, Alanine 3.91, Arginine 2.43, Aspartic acid 7.20, Glutamic acid 1.40, Glycine 3.05, Proline 2.36, Serine 2.66, Tyrosine 1.44 (free form in mg) Threonine 0.034, Alanine 0.47, Aspartic acid 0.23, Glutamic acid 0.68

Betaines: Glycine Betaine trace, Gamma Amino Butyric Acid Betaine trace, Delta Amino Valeric Acid Betaine trace, TML (Laminine) trace, L-Carnitine trace, Trigonelline trace Carbohydrate: (mg) 580 (including non-starch polysaccharides Algin 175, Fucose and Fucoidan 90, Mannitol 60, Methylpentosans, Laminarin 35, Mannuronic acid 210) and essential fatty acids (EFAs), enzymes and valuable compounds which cannot be artificially formulated such as the phenolic compounds including free phloroglucinol, fucophorethols, and phlorotannin derivatives.

*Watanabe, S. Takenaka, H. Kittaka-Katsura, S. Ebara, E. Miyamoto, Characterisation and Bioavailability of Vitamin B12 compounds from edible alga, Journal of Nutritional Science and Vitaminology, 48(5): 325-331, October 2002.

Table 3

Typical nutritional values per 100 grams seaweed (g)

Protein		5.40		
Carbohydrate	I	57.90		
Sugars (glucopolys	saccharides)	8.00		
Fat				
3.20				
Saturates		0.60		
Monosaturates		1.60		
Polyunsaturates		0.88		
Trans fatty acids		0.10		
Fibre	5.00			
Sodium		2.70		
Moisture	1	1.60		
Energy	282 kcal (11	95 kJ)		
Crude ash		21.93		
Insoluble ash		0.21		

Seaweed harvesting

For 12 years Seagreens has made the most nutritious European seaweeds easy to include in our everyday diet. In Scotland and Norway, the company has pioneered the standard for harvesting and production of food quality wild seaweed.



Wild wrack, Isle of Lewis, Outer Hebrides, 2009

Seagreens are uniquely certified to EU and NOP Organic and Biodynamic standards. Nothing is added or extracted, and they are free of contaminants, irradiation, GMOs, wheat, dairy, gluten, manufacturing incipients and known allergens. Seagreens are widely endorsed by nutritionists, medical and dental practitioners, health and food societies, and are the subject of ongoing scientific research. More than 200 scientific and healthcare references are available at the Seagreens information website: http://www.seagreens.com/University/SeagreensHealthcareSummary.aspx

Salt harvesting

Cornish Sea Salt, located in an area of Outstanding Natural Beauty and Scientific Interest, is the only British salt producer returning sea water back to the ocean as sea water - not distilled, which can adversely effect local salinity.



Tony Fraser, founder, Cornish Sea Salt

The white, flaky salt crystals are produced in a Soil Association approved state-of-the-art, ecofriendly harvesting facility using low energy output, rainwater collection, laminated timbers and a marmoliumclad interior with inherent antiseptic qualities.

Fresh sea water (Grade A, the highest purity standard) is pumped some 8 metres to a 3-stage bespoke filtration process and heat evaporation to concentrate the salt. The salt crystals are harvested and the water, less only 0.5% salt, trickles back to the sea at ambient temperature, through a natural fault in the rock face.

Any queries, please call Seagreens Information Service 0845-0640040 / info@seagreens.co.uk

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