



Thorvin, Inc. | 49 Race Street, P.O. Box 730 | New Castle, VA 24127  
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## Icelandic Geothermal Kelp – Specifications

### *Ascophyllum nodosum* Certified 100% Organic

PRODUCT DESCRIPTION			
<b>Species</b>	<i>Ascophyllum nodosum</i>		
<b>Plant Part</b>	Milled Sea Vegetation (whole thallus)		
<b>Processing Method</b>	Sustainable harvest, controlled geothermal low-temperature drying		
<b>Country of Origin</b>	Iceland		
<b>Primary Active</b>	Phytonutrients, Iodine and other micronutrients		
<b>Particle Size</b>	Flakes, Granules and Powder		
<b>Color</b>	Green		
<b>Aroma</b>	Mild marine odor		
<b>Taste</b>	Salty		
<b>Storage</b>	Dry area		
<b>Shelf Life</b>	Best used within 36-months		
<b>Packaging</b>	25 kg. (55 lbs.); Multi-walled Kraft bag; easy-pour spout		
<b>Certificates</b>	Certified 100% Organic by QAI; Certified Kosher by Star-K		
ANALYSIS			
<b>Activity</b>	600-1200 ppm (0.06 – 0.12%) Iodine		<b>Test Methods</b>
<b>Moisture</b>	NMT 10%		
<b>Ash</b>	NMT 45%		
<b>Lead</b>	NMT 5 ppm		
<b>Inorganic Arsenic</b>	NMT 1 ppm		ICP-MS
<b>Cadmium</b>	NMT 2.0 ppm		ICP-MS
<b>Mercury</b>	NMT 0.05 ppm		ICP-MS
<b>Microbial</b>	Aerobic Plate Count	<10,000 CFU/g	FDA BAM 3
	Total Coliform	<1,000 CFU/g	FDA BAM 4
	E. coli	N/D (<10 CFU/g)	FDA BAM 4
	Salmonella	Negative (ND/25g)	AOAC-989.09
	Yeast/Mold	<2,500 CFU/g each	FDA BAM 18

**Thorvin contains over 60 minerals, vitamins, amino acids, and beneficial phytonutrients.**

Thorvin is a 100% natural organic marine algae product; therefore, a specific laboratory analysis may vary from the typical analysis due to naturally occurring fluctuations in the sea plant. The information presented above is believed to be accurate and reliable; however, Thorvin, Inc. makes no warranty, either express or implied, and assumes no liability for this information and the product described herein. These are averages and are not guaranteed as conditions of sale.

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 THOR-IGK-ASCO-SPEC-20618



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# Icelandic Geothermal Kelp – Typical Analysis

## *Ascophyllum nodosum*

General (Average %)	
Moisture	9.0
Protein	8.5
Crude Fiber	4.0
Total Ash (minerals)	29.0
Fat	2.0
Carbohydrates	47.5
<i>Total</i> 100.00	

Macronutrients (%)			Micronutrients (PPM)		
Ca	Calcium	2.1	Al	Aluminum	289
Cl	Chlorine	6.5	B	Boron	98
K	Potassium	2.7	Co	Cobalt	4
Mg	Magnesium	0.85	Cr	Chromium	0.8
N	Nitrogen	1.4	Cu	Copper	4
Na	Sodium	4.0	Fe	Iron	622
P	Phosphorus	0.3	I	Iodine	780
S	Sulfur	2.8	Mn	Manganese	60
VITAMINS (PPM)			Mo	Molybdenum	2
A	Retinol	390 ppb	Se	Selenium	0.5
B <sub>2</sub>	Riboflavin	4.9 ppm	Sn	Tin	6.5
B <sub>3</sub>	Niacin	182.6 ppm	Zn	Zinc	12
C	Ascorbic Acid	375 ppm			
D	Cholcalciferol	150 ppb			
E	Alph-tocopherol	110 ppm			

AMINO ACIDS (% OF TOTAL AMINO ACIDS)			
Alanine	5.52	Lysine	4.24
Arginine	5.47	Methionine	1.07
Aspartic Acid	9.88	Phenylalanine	3.54
Cystine	1.49	Proline	3.71
Glycine	5.70	Serine	4.92
Glutamic Acid	12.03	Threonine	4.60
Histidine	1.29	Tryptophan	1.68
Isoleucine	3.26	Tyrosine	3.52
Leucine	5.63	Valine	3.51

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Ingredients: Certified 100% Organic Seaweed Meal

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