

# 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 (%)

Ca	Calcium	2.1
Cl	Chlorine	6.5
K	Potassium	2.7
Mg	Magnesium	0.85
N	Nitrogen	1.4
Na	Sodium	4.0
P	Phosphorus	0.3
S	Sulfur	2.8

### Micronutrients (PPM)

Al	Aluminum	289
B	Boron	98
Co	Cobalt	4
Cr	Chromium	0.8
Cu	Copper	4
Fe	Iron	622
I	Iodine	780
Mn	Manganese	60
Mo	Molybdenum	2
Se	Selenium	0.5
Sn	Tin	6.5
Zn	Zinc	12

### VITAMINS (PPM)

A	Retinol	390 ppb
B <sub>2</sub>	Riboflavin	4.9 ppm
B <sub>3</sub>	Niacin	182.6 ppm
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