



Acadian Seaplants Limited
30 Brown Avenue
Dartmouth, Nova Scotia
Canada B3B 1X8
Telephone: (902) 468-2840
FAX: (902) 468-3474

Product and Technical Information

Ascophyllum nodosum KELP MEAL AND FLOUR

ASCOPHYLLUM NODOSUM seaweed, commonly known as Norwegian Kelp, Common wrack or Rockweed, is a brown seaweed which grows along the North Atlantic shorelines of Canada and Europe. Acadian Seaplants harvests the seaweed off the cold, clean coast of Nova Scotia, Canada and processes it under rigorous quality control standards to preserve the maximum benefits of the live seaweed. As this is a 100% natural product, the typical analysis below may vary due to variations in the seaweed.

TYPICAL ANALYSIS: (Approximate %)

Moisture	12.0%
Crude Protein	6.0%
Crude Fiber	6.0%
Ash (Minerals)	22.0%
Fat	2.0%
Carbohydrates	52.0%
Total	100.0%

CARBOHYDRATES:

Alginate Acid	18.0 - 27.0%
Mannitol	3.0 - 8.0%
Laminarin	2.0 - 5.0%
Other Sugars	20.0 - 22.0%

MINERALS:

Aluminum	20 - 100 ppm
Arsenic	<3 ppm
Barium	15 - 50 ppm
Beryllium	<1 ppm
Boron	80 - 100 ppm
Cadmium	<1 ppm
Calcium	1.0 - 3.0%
Chlorine	1.0 - 3.0%
Chromium	<1 ppm
Cobalt	1 - 10 ppm
Copper	4 - 15 ppm
Iodine	<1000 ppm
Iron	150-1000 ppm
Lead	<1 ppm
Magnesium	0.5 - 1.0%
Manganese	10 - 50 ppm
Mercury	<.001 ppm
Molybdenum	<1 ppm
Nickel	1 - 5 ppm
Nitrogen	0.6 - 2.0%
Phosphorus	0.1 - 0.2%

Potassium	2.0 - 3.0%
Selenium	3 - 4 ppm
Sodium	2.4 - 4.0%
Strontium	100 - 200 ppm
Sulphur	2.0 - 2.3%
Tin	<10 ppm
Titanium	3 - 6 ppm
Vanadium	2 - 5 ppm
Zinc	35 - 100 ppm

VITAMINS:

Biotin	0.1 - 0.4 ppm
Carotene	30 - 60 ppm
Folic Acid	0.1 - 0.5 ppm
Folinic Acid	0.1 - 0.5 ppm
Niacin	10 - 30 ppm
Riboflavin	5 - 10 ppm
Thiamin	1 - 5 ppm
Tocopherols	150 - 300 ppm
Vitamin C	100-2000 ppm
Vitamin B ₁₂	<0.004 ppm
Vitamin K	<10 ppm

AMINO ACID CONTENT (Expressed as g of amino acid nitrogen per 100g of protein nitrogen)

Alanine	5.3	Lysine	4.9
Arginine	8.0	Methionine	0.7
Aspartic Acid	6.9	Phenylalanine	2.3
Cystine	trace	Proline	2.6
Glycine	5.0	Serine	3.0
Glutamic Acid	10.0	Threonine	2.8
Histidine	1.3	Tryptophan	trace
Isoleucine	2.8	Trypsine	0.9
Leucine	4.6	Valine	3.7