

KELP

MEAL, FLAKES, FLOUR



BADGER INGREDIENTS INC & INGREDIENT LOGISTICS LLC

TYPICAL ANALYSIS: (Approximate %)

Moisture	Max 13%
Crude Protein	Min 4%
Crude Fiber	6%
Ash (Minerals)	Max 23%
Fat	Min 2.5%
Carbohydrates	Min 50%

MINERALS:

Aluminum (Al)	Max 120 ppm
Barium (Ba)	Max 15 ppm
Beryllium (Be)	<1 ppm
Boron (B)	Min 80 ppm
Cadmium (Cd)	<1 ppm
Calcium (Ca)	Min 1.2%
Chloride (Cl)	Max 3.5%
Chromium (Cr)	1 – 2 ppm
Cobalt (Co)	<1 ppm
Copper (Cu)	Max 2 ppm
Iodine (I)	Min 650 ppm
Iron (Fe)	Min 150 ppm
Lead (Pb)	<1 ppm
Magnesium (Mg)	Min 0.6%
Manganese (Mn)	Min 25 ppm
Mercury (Hg)	<1 ppm
Molybdenum (Mo)	<2 ppm
Nickel (Ni)	<1 ppm
Nitrogen (N)	Min 0.6%
Phosphorus (P)	Min 0.1%
Potassium (K)	Min 1.5%
Selenium (Se)	<1 ppm
Sodium (Na)	Max 3.5%
Strontium (Sr)	100 – 600 ppm
Sulfur (Sp)	Min 1.8%
Tin (Sn)	<10 ppm
Titanium (Ti)	Max 10 ppm
Vanadium (V)	Max 5 ppm
Zinc (Zn)	Min 20 ppm

CARBOHYDRATES:

Alginate Acid	18 – 27%
Mannitol	3 – 8%
Laminarin	2 – 5%
Other Sugars	20 – 22%

VITAMINS:

Biotin	0.1 – 0.4 ppm
Carotene	30 – 60 ppm
Folic 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:

Alanine	0.34%
Arginine	0.22%
Aspartic Acid	0.53%
Cystine	0.07%
Glutamic Acid	0.71%
Glycine	0.30%
Histidine	0.07%
Isoleucine	0.26%
Leucine	0.38%
Lysine	0.30%
Methionine	0.11%
Phenylalanine	0.24%
Proline	0.25%
Serine	0.27%
Threonine	0.25%
Tryosine	0.12%
Tryptophan	0.06%
Valine	0.27%