

# BLUE GREEN ALGAE ANALYSIS



Essential Amino Acids	Analysis Result	Unit Of Measure
Arginine	g/100g	4.12
Histidine	g/100g	1.37
Isolucine	g/100g	3.3
Leucine	g/100g	5.40
Lysine	g/100g	3.35
Methionine	g/100g	1.29
Phenylalanine	g/100g	2.48
Threonine	g/100g	3.70
Tryptophan	mg/g	15
Valine	g/100g	3.23
<b>Non-essential Amino Acids</b>		
Alanine	g/100g	5.22
Asparagine	mg/g	90
Aspartic Acid	g/100g	7.09
Cystine	mg/g	6
Glutamic Acid	g/100g	7.07
Glutimine	mg/g	140
Glycine	g/100g	2.69
Proline	g/100g	2.17
Serine	mg/g	55
Tyrosine	g/100g	1.77
<b>Amines</b>		
Phenylethylamine	%	0.07
<b>Microbiological</b>		
Standard Plate Count	CFU/gm	<100,000
Salmonella	in 25/gm	ND
Staphylococcus Aureus	CFU/gm	<3
Yeast & Mold	CFU/gm	<500
E.Coli	MPN/gm	<3
Total Colofoms	CFU/gm	<100
Microcystin	ppm	<1.0
Aflatoxin	ppb	<10
Anatoxin-a	ppm	<1.0
Cylindrospermopsin	ppm	<0.05
Pheophorbide (Original/Existing)	mg/100g	<100
Pheophorbide (Total)	mg/100g	<160
Saxatoxin	mg/kg	<0.02

Lipids	Analysis Result	Unit Of Measure
n-3 Polyunsaturated Fats	g/100g	0.730
n-6 Polyunsaturated Fats	g/100g	0.110
Polyunsaturated Fats	mg/100g	2.341
Omega-3 Fats	mg/100g	1.222
Saturated Fats	mg/100g	1.886
Monounsaturated Fats	mg/100g	0.208
Total Trans Fat	g/100g	0.0130
Chlorophyll A	mg/100g	1650
Divynl Chlorophyll a	mg/100g	700
Phycocyanin	%	15
<b>Fatty Acid Profile</b>		
Oleic Acid (C18:1n9)	g/100g	0.091
Elaidic Acid (C18: 1n 9 trans)	g/100g	0.170
Petroselinic Acid (C18: 1n12)	g/100g	0.010
Vaccenic Acid (C18: 1n7)	g/100g	0.010
Linoleic Acid	g/100g	0.155
Transvaccenic Acid (C18: 1n 7 trans)	g/100g	0.040
Linolenic Acid (C18:3n3)	g/100g	1.168
Linoelaidic Acid (C18: 2n6 trans)	g/100g	0.010
Gamma-Linolenic Acid (C18: 3n6)	g/100g	0.925
Nonadecanoic Acid	g/100g	0.010
Nonadecanoic Acid (C19: 1n 12)	g/100g	0.010
Arachidic Acid	g/100g	0.013
Eicosenoic Acid (C20: 1n15)	g/100g	0.010
Eicosenoic Acid (C20: 1n12)	g/100g	0.010
Gondonic Acid (C20: 1n9)	g/100g	0.013
Cis-11, 14-Eicosadienoic Acid	g/100g	0.013
Eicosatrienoic Acid (C20:3 cis 11,14,17)	g/100g	0.013
Eicosatrienoic Acid (C20:3 cis 8, 11, 14)	g/100g	0.013
Arachidonic Acid	g/100g	0.014
Cis-5, 8, 11, 14, 17- Eicosapentaenoic Acid	g/100g	0.010
Behenic Acid	g/100g	0.013
Brassicic (trans 13) (C22:1)	g/100g	0.013
Erucic Acid	g/100g	0.013
Docosadienoic Acid (C22:2)	g/100g	0.013
Docosotrienoic Acid (C22:3)	g/100g	0.010
Docosatetraenoic Acid (C22: 4n6)	g/100g	0.010
Docosopentaenoic Acid(C22:5)	g/100g	0.013
Docosohexaenoic Acid (C22:6)	g/100g	0.014
Lignoceric Acid (C24:0)	g/100g	0.014
Nervonic Acid (C24:1)	g/100g	0.014
Myristic Acid	g/100g	0.156
Palmitic Acid	g/100g	1.080

Naturally Chelated Minerals	Analysis Result	Unit Of Measure
Palmitoleic Acid (C16: 1n 7)	g/100g	0.064
Stearic Acid	g/100g	0.610
Aluminum	mg/kg	32.1
Antimony	mg/kg	2
Boron	mg/kg	12.1
Barium	mg/kg	6.31
Beryllium	mg/kg	<0.01
Bismuth	mg/kg	0.13
Bromine	ppm	47.2
Calcium	mg/kg	5110
Chromium	mg/kg	0.87
Cobalt	mg/kg	1.61
Copper	mg/kg	9.81
Cadmium	mg/kg	<0.05
Carbon	ppm	936,000
Cerium	mg/kg	<0.10
<b>Cesium</b>	mg/kg	<0.05
Chloride	ppm	16,200
Dysprosium	ppm	0.347
Erbium	ppm	0.882
Europium	ppm	<0.05
Fluoride	mg/kg	935
Gadolinium	ppm	0.96
Gallium	mg/kg	0.21
<b>Gold</b>	mg/kg	0.05
Germanium	mg/kg	<0.10
Hafnium	ppm	0.076
Indium	ppm	0.054
Iodine	mg/kg	25.1
Iridium	mg/kg	<0.05
Iron	mg/kg	303
Lanthanum	mg/kg	<0.05
Lead	mg/kg	<0.05
Lithium	mg/kg	0.8
Lutetium	ppm	0.089
Manganese	mg/kg	31
Magnesium	mg/kg	38.25
Mercury	mg/kg	<0.01
Molybdenum	mg/kg	4
Neodymium	ppm	0.31
Nickel	mg/kg	8.5
Niobium	mg/kg	<0.01
Osmium	mg/kg	<0.05
Palladium	mg/kg	<0.01
Phosphorus	mg/kg	23.2
Potassium	mg/kg	13,010
Platinum	mg/kg	<0.01
Praseodymium	ppm	0.15
Rhenium	mg/kg	<0.05
Rhodium	mg/kg	<0.01
<b>Rubidium</b>	mg/kg	0.9
Ruthenium	ppm	0.06
Samarium	ppm	0.85
Scandium	mg/kg	<0.05
<b>Selenium</b>	mg/kg	0.77
Silicon	ppm	233
Silver	mg/kg	0.08
Sodium	mg/kg	1980
Strontium	mg/kg	3.12
Sulfur	ppm	350
Tantalum	ppm	0.65
Tellurium	mg/kg	<0.05
Terbium	ppm	0.071
Thallium	mg/kg	1.8
Thorium	mg/kg	<0.05
Thulium	ppm	0.095
Tin	mg/kg	<0.10
Titanium	mg/kg	0.15
Tungsten	mg/kg	<0.05
Uranium	mg/kg	<0.05
Vanadium	mg/kg	1.22
Ytterbium	mg/kg	0.084
Yttrium	mg/kg	<0.01
Zinc	mg/kg	4.1
Zirconium	mg/kg	<0.50

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Vitamins	Analysis Result	Unit Of Measure
Astaxanthin	µg/100g	250
Betacarotene	IU/100g	226,000
Biotin	mcg/100g	30
Calcium Pantothenate	mcg/1 g	12
Choline	mg/100g	163
Folic Acid	mg/100g	7.2
Inosital	mcg/1 g	0.35
Niacin	mg/100g	410
Pantothenic Acid (B5)	mg/100g	160
Pyroxidine (B6)	mg/100g	2.6
Riboflavin	mg/100g	3.11
Thiamine	mg/100g	24.1
Vitamin B-12	mg/g	0.38
Vitamin C	mg/g	2.2
Vitamin E	IU/100g	410
Vitamin K	mcg/2 g	52.8

Macro Nutrients and Chemical Composition	Analysis Result	Unit Of Measure
Ash	g/100g	6.88
Calories	cal/100g	361
Carbon	%d/w	42.1
Carbohydrates (calculated)	g/100g	19
Total Dietary Fiber	g/100g	5.5
Total Fat	g/100g	4.44
Hydrogen	%d/w	6
Moisture	g/100g	5.52
Nitrogen	%d/w	9.1
Total Protein	g/100g	73.79
Total Sugars	g/100g	0.8

Enzyme Activity	Analysis Result	Unit Of Measure
Acid Phosphatase	u/g	0.352
B-glucosidase	u/g	0.235

Enzyme Activity Continued	Analysis Result	Unit Of Measure
B-galactosidase	u/g	0.836
SOD Equivalen	per gram	1,728
ORAC (hydro)	µmole TE/g	101
ORAC (lipo)	µmole TE/g	12
ORAC (total)	µmole TE/g	113

Newly quantified	Analysis Result	Unit Of Measure
Divynl Chlorophyll a	ppm	7023
Otteliones a	%	0.210
Phytol	%	0.460
Micosporine like amino acids	ppm	56.83

Known not yet elucidated	Analysis Result	Unit Of Measure
Anti virals (2)		
Anti Bacterial		

Heavy Metal Testing	Analysis Result	Unit Of Measure
Antimony (Sb)	ppm	1.31
Arsenic (As)	ppm	None Detected

Heavy Metal Testing Continued	Analysis Result	Unit Of Measure
Bismuth (Bi)	ppm	0.13
Cadmium (Cd)	ppm	None Detected
Copper (Cu)	ppm	9.11
Lead (Pb)	ppm	None Detected
Mercury (Hg)	ppm	None Detected
Molybdenum (Mo)	ppm	4.0
Silver (Ag)	ppm	0.020
Tin (Sn)	ppm	None Detected

GMO-free Testing	Analysis Result	Unit Of Measure
35S/NOS Qualitative PCR Analysis Limit of Detection: 0.01% (Grain Reference Material)		
Universal Plant DNA	Detected	
Inhibition Test	No Inhibition observed	
35S Promotor Qualitative	Not Detected	
NOS Terminator Qualitative	Not Detected	

Gluten-free Testing	Analysis Result	Unit Of Measure
Gluten Allergen	ppm	<10

Full Pesticide Screen		
<b>(A) Organochloride Scan</b>		
ECD SCAN: (Rtx-5/Rtx-CLP@150°C for 3 min. then 10°C/min. to 290°C)		
No Organochloride pesticides detected. Organochloride pesticides detection limit = 0.005 to 0.30 ppm		
<b>(B) Organonitrogen Scan</b>		
TSD SCAN: (Rtx-5/Rtx-50@150°C for 3 min. then 10°C/min. to 280°C)		
No Organonitrogen pesticides detected. Organonitrogen pesticides detection limit = 0.03 to 1.0 ppm		
<b>(C) Organophosphate Scan</b>		
FPD"P" SCAN: (Rtx-50@140°C for 2 min. then 10°C/min. to 290°C)		
No Organophosphate pesticides detected. Organophosphate pesticides detection limit = 0.01 to 0.30 ppm		
<b>(D) HPLC Scan</b>		
N-Methyl Carbamates	None Detected	(Detection Limit (ppm) 0.01)
No N-Methyl Carbamates detected *Note that any level reported as less than (<) indicates a result of non-detect at the level tested. The test level is indicated. Actual values may be far below or not in the product.		
<b>Report Revised by Kim Padula 9/1/2017</b>		
Klamath Valley Botanicals, LLC, 24800 Modoc Point Road, Chiloquin, Oregon 97624 USA		
<i>*Note that any level reported as less than (&lt;) indicates a result of non-detect at the level tested. The test level is indicated. Actual values may be far below or not in the product.</i>		