

# Certificate of Analysis

Description	Marine Phytoplankton biomass, dried powder
Product	Nannochloropsis 200 Premium Series
Intended use	Food Grade Quality
Batch Number	EH141003

Typical Analysis	Result
<b>Physical properties</b>	
Dry weight	95.7%
Bulk density	541 g/L
<b>Biochemical composition (g/ 100g)</b>	
Total protein	45-48%
Total fat	17-21%
Carbohydrates	15-25%
Crude fiber	0,2-0,4%
Calorific value	448 kcal
Ash	6-10%
<b>Amino acid profile (g/100 g)</b>	
Alanine	3,29
Arginine	2,79
Asparatic acid	4,1
Cystein + Cystine	0,31
Glutamic acid	5,73
Glycine	3,27
Histidine	1,1
Isoleucine	2,18
Leucine	4,94
Lysine	3,93
Methionine	1,32
Phenylalanine	2,84
Proline	3,84
Serine	2,12
Threonine	2,49
Tryptophane (total)	0,88
Tyrosine	2,09
Valine	2,55
<b>Lipids (% of total lipids)</b>	
Neutral lipids (TAG)	10,1
Cholesterol	10,6
Free fatty acids	8,6
Glycolipids	26,5
Phopholipids	34,5
Choleterol ester	8,8

<b>Fatty acids (% of total fatty acid content)</b>	
C14:0	3,8
C16:0	18,0
C16:1 ( $\omega$ 7)	13,2
C18:1 ( $\omega$ 9)	7,8
C18:2 ( $\omega$ 6)	12,2
C20:4 ( $\omega$ 6)	5,0
C20:5 ( $\omega$ 3)	24,4
Total saturated fatty acids	23,0
Total monounsaturated fatty acids	22,4
Total polyunsaturated fatty acids	54,5

<b>Fatty acids per lipid class (% of total fatty acid content)</b>	
Lysophosphatidylcholin	1,2
Sphingomyelin	4,7
PE (phosphatidylethanolamine)	3,6
PC (phosphatidylcholine)	21,2
PG (phosphatidylserine)	13,9
PI (phosphatidylinositol)	1,9
MGDG (monogalactosyldiacylglycerol)	19,1
DGDG (digalactosyldiacylglycerol)	11,8
DGTS (diacylglyceroltrimethylhomoserine)	6,7
SQDG (sulfochinovosyldiacylglycerol)	5,4
other	10,5

<b>Minerals (mg/ 100 g)</b>	
Sodium	2.480
Potassium	1.490
Calcium	1.140
Phosphorous	1.170
Iron	530
Magnesium	1.190
Zinc	37
Sulfur	784

<b>Pigments (mg/ 100 g)</b>	
Chlorophyll	2.380
Carotenoids	616
$\beta$ -carotene	264

<b>Vitamins (mg/kg)</b>	
Vitamin C (ascorbic acid)	396
Vitamin B1 (thiamine)	44
Vitamin B2 (riboflavin)	37
Vitamin B6 (pyridoxine)	3,0
Vitamin B8 (biotin)	0,3
Vitamin B9 (folic acid)	11
Vitamin B12 (cobalamin)	2,0
Vitamin E ( $\alpha$ tocopherol)	240

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**heavy metals**

Cadmium	0.009
Arsenic	0.18
Mercury	0.008
Lead	0.32

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**Microbiology**

Total aerobic plate count	<10 <sup>7</sup> CFU/g
Yeast	<10 <sup>2</sup> CFU/g
Moulds	<10 <sup>2</sup> CFU/g
<i>E. coli</i>	Negative/ g
Coliforms	< 3
Thermotolerant coliforms	< 3
Coagulase positive Staphylococci	< 10
Salmonella	Negative / 25 g
<i>Vibrio parahaemolyticus</i>	Negative / 25 g

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Date of analysis: 16.03.15

Best Before: 16.03.17

Storage specification: 4-7°C, in a dry and dark place

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