

**FORMULATION**

Ingrédients	Spécifications	Quantité / comprimé (mg)	Résultats
Poudre de Spiruline BIO* ( <i>Arthrospira platensis</i> )	$\geq 60\%$ protéines $\geq 14\%$ phycocyanines $\geq 2$ ppm vitamine B12	500,0000	<i>CONFORME</i>

*\* Ingrédient issu de l'agriculture biologique*

**FABRICATION – 07/2021**

<b>Critères</b>	<b>Spécifications</b>	<b>Résultats</b>
Aspect	Lisses, non clivés	<i>CONFORME</i>
Format	Rond	<i>CONFORME</i>
Poids moyen	500 mg ± 5%	<i>507 mg</i>
Couleur	Vert foncé	<i>CONFORME</i>
Contrôle microbiologique	PE 8 5.1.8 Cat C	<i>CONFORME</i>

**CONDITIONNEMENT – 23/02/2022**

**PILULIERS**

Volume	400 mL	<i>CONFORME</i>
Couleur pilulier	Noir	<i>CONFORME</i>
Cape	Alu à vis + joint PS	<i>CONFORME</i>
Nombre de comprimés	500	<i>CONFORME</i>
Étiquette	ETIQ SPIRULINE BIO 500 NEW RPET V1	<i>CONFORME</i>
Accessoire	Manchon d'inviolabilité 31 mm transparent	<i>CONFORME</i>
Codage	LOT : 85569A 07/2024	<i>CONFORME</i>

REDACTEUR  
Brisset Julie



VERIFICATEUR  
Le Bourhis Hélène



**CERTIFICATE OF ANALYSIS**

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Product Name	100% Organic Spirulina ( <i>Arthrospira platensis</i> ) Tablet – 500 mg
Product Code	OST – A2
Batch Number	P2STNG2132
Month of mfg	JULY-2021
Batch Size	2000.000 KG
Best before	Within 36 months from the month of mfg under proper storage condition
Plant part	Whole cell
Country of Origin	India

PARAMETERS	SPECIFICATION	RESULT	TEST METHOD / REFERENCE
<b>PHYSICAL PROPERTIES</b>			
Colour	Dark green	Complies	Visual
Odour & Taste	Mild	Complies	Organoleptic test
Shape	Round	Complies	Visual
Average Weight (mg)	500 (± 25mg)	507	Indian pharmacopoeia
Thickness (mm)	5.00 – 6.00	5.11	In house method
Hardness (Kg / sq.cm)	3.00 – 7.00	4.51	
Friability (%)	NMT 1.00	0.03	Indian pharmacopoeia
<b>PHYSICAL AND CHEMICAL ANALYSIS</b>			
Protein (%)*	NLT 60.00	68.75	Nitrogen Determination USP <461>
Loss on Drying (%)	2.50 – 7.00	4.82	Loss on drying USP <731>
Total Ash (%)	5.00 – 9.00	7.15	Total Ash USP <561>
Limit of Microcystin (µg/g)**	NMT 0.5	Complies	Current USP Spirulina monograph
<b>PIGMENT ANALYSIS</b>			
Total Carotenoids (%)*	NLT 0.360	0.486	Strickland and Parsons (1972). A practical Handbook of Seawater Analysis.
Beta Carotene (%)*	NLT 0.140	0.229	Ranganna .S. (1986). Handbook of analysis and QC for fruit & veg. Products.

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PARAMETERS	SPECIFICATION	RESULT	TEST METHOD / REFERENCE
Chlorophyll "A" (%)**	NLT 1.10	Complies	Vonshak A. 1997. Spirulina platensis (Arthrospira) Physiology, cell biology and biotechnology
Crude Phycocyanin (%)*	NLT 14.00	19.19	Boussiba, Arch. Microbial., 120:155-159, 1979
Total Pheophorbides (%)**	NMT 0.120	Complies	a) Test method for Spirulina by JHFA, Environmental Food Number 99 (1981) b) Seward R. Brown. Absorption Coefficients of Chlorophyll Derivatives.
Existing Pheophorbides (%)**	NMT 0.080	Complies	J. Fish. Res. Bd Canada 25 (3) 523 – 540, 1968
<b>FATTY ACID PROFILE**</b>			
<b>Fatty Acids</b>	<b>Identification</b>	Complies	By GC, Current USP Spirulina monograph
Palmitic Acid (%)	35.00 – 60.00	Complies	
Palmitoleic Acid (%)	2.00 – 8.00	Complies	
Stearic Acid (%)	1.00 – 5.00	Complies	
Oleic Acid (%)	1.00 – 7.00	Complies	
Linoleic acid (%)	13.00 – 25.00	Complies	
Gamma Linolenic Acid (%)	13.00 – 27.00	Complies	
Alpha Linolenic Acid (%)	NMT 0.50	Complies	
<b>MICROBIAL ANALYSIS</b>			
Standard Plate Count (cfu/g)	NMT 50,000	6000	Current USP Spirulina monograph 1. Microbial Enumeration tests USP <2021> 2. Absence of Specified Microorganisms USP <2022>
Yeasts and Molds Count (cfu/g)	NMT 100	30	
Bile Tolerant Gram –Negative Bacteria (cfu/g)	NMT 100	Fewer than 10	
E.coli (/10g)	Absence	Absence	
Salmonella (/10g)	Absence	Absence	
Staphylococcus (/10g)	Absence	Absence	

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PARAMETERS	SPECIFICATION	RESULT	TEST METHOD / REFERENCE
<b>ELEMENTAL CONTAMINANTS &amp; PESTICIDES ANALYSIS**</b>			
Lead (µg/g)	NMT 0.20	Complies	By ICP –MS. Official methods of analysis of AOAC International, 18 <sup>th</sup> Edition
Arsenic (µg/g)	NMT 0.50	Complies	
Cadmium (µg/g)	NMT 0.20	Complies	
Mercury (µg/g)	NMT 0.025	Complies	
Pesticides	As per USP Specification	Complies	By GC –MS. Official methods of analysis of AOAC International, 18 <sup>th</sup> Edition