LEPIVITS Belgium 4 Avenue Franklin – Unité 16 1300 Wavre BELGIQUE



Fiche technique - Spiruline 600

Code EAN : 5430002936741 (90 gélules)

*NUT : 3760/48

CERTIFICAT D'ANALYSE - Organic spirulina powder

CERTIFICATE OF ANALYSIS

Organic product certified by Ecocert FR-BIO-01

	Product a	and Batch Informations	a by Ecocett TX-bio-
	등록하다 하는 사람이 한다는 사람이 없는 사람들이 아니라 하는 사람들이 살아 있다. 그 없는 것이 없는 것이 없는 것이다.	nic Spirulina powder ref:SPIRUECO001	
Latin name	Arthrospira platensis	Carrier	None
Plant part	Whole cell	Country of plant origin	Asia - China
Batch	OSP0420200629-ext	Country of manufacturing	Asia - China
MF date	29/06/2020	Expiration date	28/06/2023

ANALYSIS ITEM	SPECIFICATION	RESULT	TEST METHOD
, and the second se	ctive Ingredients/Subst	ance to control	
	NLT 60% protein	66,8%	GB/T 5009.5-2010
Assay	NLT 12% Phycocyanin	12,10%	SNT 1113-2002
7.554	>2mg/g carotenoid*	Complies	HPLC+visible
	6-15mg/gChlorophyll*	Complies	
Substance to control *	lode	Not tested	not tested
	microcystins (<1ppm)		not tested
	Physical/Chemical	entransport of the American State of the State of the State of the State of	
Appearance**	Dark green powder	Complies	Organoleptic
Sieve analysis	80 mesh	Conform	
Loss on drying	NMT 7,0%	6,64%	GB 5009.3-2016
Ash	NMT 7,0%	5,90%	GB 5009.4-2016
	Contaminant Co	ntrol*	
Lead (Pb)	NMT 3ppm	0,094ppm	ICP/MS
Arsenic (As)	NMT 1ppm	0,27ppm	ICP/MS
Cadmium(Cd)	NMT 1ppm	0,011ppm	ICP/MS
Mercury (Hg)	NMT 0,1ppm	<0,005ppm	ICP/MS
Pesticides Residues	<loq< td=""><td>Complies</td><td>GC/LC</td></loq<>	Complies	GC/LC
PAHs	NMT 50ppb	10ppb	GC-MS
Benzo(a)pyrene	NMT 10ppb	1,5ppb	GC-MS
Alfatoxines (B1-B2-G1-G2)	NMT 20ppb	Complies	HPLC
	Microbiological C	Control	
Total aerobic microbial	NMT 500 000 cfu/g	Complies	GB 4789.2-2010
Tot. yeast and mould	NMT 50 000 cfu/g	Complies	GB/4789.15-2010
ile tolerant gram - bacteria*	NMT 10 000 cfu/g	Complies	NF V 08-054
Salmonella	Negative	Negative	GB 4789.4-2010
E.Coli*	Negative	Negative	GB 4789.4-2010
Staphylococcus	Negative	Negative	GB 4789.10-2010
	Allegations		
Allergens	C	ontains sulfites - 13ppm	I
GMO	100	No OGM	W. 100
Irradiation		No irradiation	******
	Packing and Sto		
Packing	The second secon	Suitable for food industry	ere incrementer especiales conseniation (College State
Storage		d keep away from strong	diseast links and base

DOSSIER TECHNIQUE - SPECIFICATION SHEET Organic spirulina powder

INFORMATIONS SUR LA PLANTE

PLANT INFORMATION

RAW MATERIAL INFORMATION

Botanical name	Arthrospira platensis
Family	Pseudanabaenaceae
Common name	Spirulina
Plant part used	Whole cell
Type of culture (cultivated/wild)	Cultivated
Geographical origin of the plant - Continent: - Country: - Region:	Asia China
Is the plant concerned by the regulation 388/97/CE	No
Method of harvest (manual/mechanical)	Mechanical
Period of harvest (month(s) of harvest)	April to November
Stage of harvest (development stage of the plant)	Mature
Has the plant been dried after harvest If so, what is the drying method	Yes Artificial drying
Has the plant been treated before harvest If so, specify	Yes Filtration and precipitation (remove impurities)
Has the plant been treated after harvest If so, specify	Spray drying
Active compound	Protein, phycocyanin
Substance to be monitored* : according to French regulation)	lodine, microcystines, iron, phycocyanin, beta-carotene

^{*}Limited substances are tested in control plan. Unlimited substances are tested on customer's request.

RAW MATERIAL IDENTIFICATION

POWDER CHARACTERIZATION

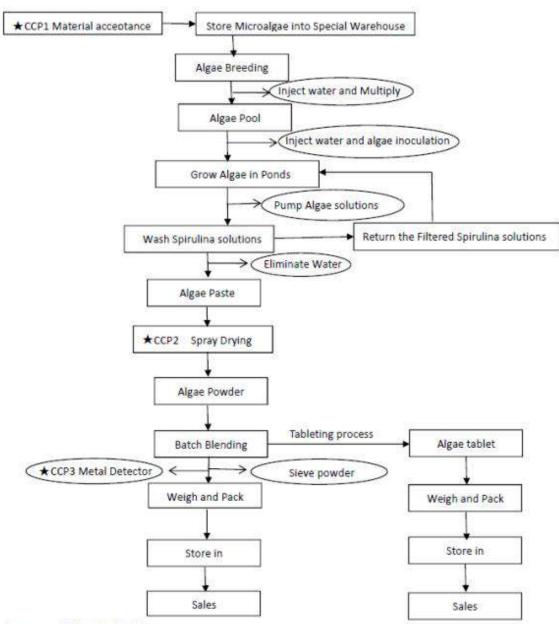
Continent of manufacture	Asia - China	
	Composition	
Ingredient(s)	Content (%)	Function
Organic spirulina powder	100%	Ingredient
	Analytical data	
Appearance*	Dark green powder	
Loss on drying	NMT 7%	
Ash	NMT 7%	
Carotenoid**	>2mg/g	
Bulk density***	0.45-0.5g/ml (indicative informa	tion)
Tapped density***	0.60-0.65g/ml (indicative inform	ation)
Particle size	80 mesh	
pH***	7.0-8.0 (informative)	
Assay – Test method	NLT 60% protein / NLT 12% phy	cocyanin
Chlorophyll***	6-15 mg/g	
Iron**	>0.1 mg/g	
Beta-carotene**	>0.2 mg/g	
9	Storage conditions / Shelf life	1
Packaging	Suitable for food industry	
Storage conditions	Store at temperature below 25°C, in a well closed bag away fr moisture and direct sun light	
Shelf life	2-3 years if stored in accordance	with recommendations
Batch size	Batch size depends of our suppl tons)	iers and of customer order (kg to
Stability data	Yes	

^{*}For products from plant origin, minor color variation can be observed due to geographical and seasonal variation of the raw material

^{**} This values are theoretical and can vary from one batch to another. They can't lead to a non-conformity

^{***}According to control plan

FLOW CHART



★ means critical control points

Washing: After washing PH value of algae within 7.5-8.5 is qualified, if out of range needs to be rewashed. Spray Drying: The inlet temperature is 180-230 ℃ and the air outing temperature is 70-75 ℃. Metal Detector: Limits: Fe ∮ ≥0.2mm₁ Stainless steel≥0.35mm.

IMPURITIES*

Conto	Analysi minants and residues		lysis	Not tested	Content- limit	Reference	
Conta	minants and residues	Each batch	Control plan	tes	Content- limit	and/or method	
	Lead (Pb)				<3ppm	GB5009.12-2017	
Heavy metals	Cadmium (Cd)		⋈		<1ppm	GB5009.15-2014	
He	Mercury (Hg)		⋈		<0.1ppm	GB5009.17-2003	
	Arsenic (As)		⋈		<1ppm	GB5009.11-2003	
0	Total plate count	×			<500 000 cfu/g	GB5009.11-2003	
onti	Yeast & moulds				<50 000 cfu/g	GB4789.15-2010	
Microbiological control	Bile tolerant gram – bacteria (enterobacteria)		×		<10 000 cfu/g	NF V 08-054	
log	E. coli		⋈		Negative	GB_4789[1].3-2010	
bio	Salmonella				Negative	GB4789.4-2010	
icro	Staphylococcus aureus		⊠		Negative	GB4789.10-2010	
Σ	Others				¥:		
	Residual solvent			\boxtimes	(#2		
	Pesticides				<loq< td=""><td>GC/LC</td></loq<>	GC/LC	
	Aflatoxin B1				(#1)		
	Sum of B1, B2, G1, G2		×		-		
	Ochratoxin A				(#)		
	Dioxins and PCBs				1500		
0	Benz(o)apyrene				<10ppb	GC-MS	
Contaminants control	Sum of PAH (benzo(a)pyrene, benz(a)anthracene, benzo(b)fluoranthene and chrysene)		⊠		<50ppb	GC-MS	
Contai	Melamine and its structural analogues			⊠		-	
•	lodine (algae)				(#E)	84	
	Microcystin (algae)				Recommended : <1ppm	-	
	Other contaminants :						
	Pyrrolizidine alkaloids			\boxtimes	On customer's request	17	
	3-MCPD (3-monochloro- propanol-1,2-diol)			⊠	3 4 3	120	

^{*}Information given by our supplier on the date of updating of data sheet

ATTESTATIONS - STATEMENTS

GMOs FREE STATEMENT

According to the manufacturer's declaration and to the European Regulations:

- Regulation (EC) No. 1829/2003 of the European Parliament and of the Council of 22 September 2003 on genetically modified food and feed
- Regulation (EC) No. 1830/2003 of the European Parliament and of the Council of 22 September 2003 concerning tractability and labelling on GMOs and tractability of food and feed products produced from GMOs and amending Directive 2001/18/EC

GMOs FREE	⊠ Yes □ I	No
		1 Page 1

If no, name and quantity (%):

NON-IRRADIATION STATEMENT

According to the manufacturer's declaration and to the the European Parliament and of the Council:	European Directive 199	99/2/EC and 1999/3/EC o
NON-IRRADIATION	⊠ Yes	□ No
BSE/TSE FREE S	TATEMENT	
According to the manufacturer's declaration:		
BSE/TSE FREE	⊠ Yes	□ No
NANOMATERIALS F	REE STATEMEI	NT
According to the manufacturer's declaration and to the Parliament and of the Council of 25 October 2011:	ne EU Regulation No 11	69/2011 of the Europear
NANOMATERIALS FREE	⊠ Yes	□ No

If no, name and quantity (%):

ALLERGENS AND CROSS CONTAMINATION STATEMENT

According to the manufacturer's declaration and to the EU Regulation No 1169/2011 of the European Parliament and of the Council of 25 October 2011, this product is:

ALLERGENS FREE		☐ Yes I	⊠ No	(if no se	ee below)
	Present in the product (Yes/No)	Quantity (ppm) In case of presence	proa	luction si tion line	allergen on the te or on the same (On Natural site and olier site)
Cereals containing gluten, namely: wheat (such as spelt and khorasan wheat), rye, barley, oats or their hybridised strains, and products thereof (1)			⊠ Yes	□ No	□ Not applicable
Crustaceans and products thereof			⊠ Yes	□ No	☐ Not applicable
Eggs and products thereof	500	366	⊠ Yes	□ No	\square Not applicable
Fish and products thereof (2)	244	***		□ No	☐ Not applicable
Peanuts and products thereof	10000	***	☐ Yes	⊠ No	\square Not applicable
Soybeans and products thereof (3)	722	-222		□ No	☐ Not applicable
Milk and products thereof (including lactose) (4)	(368	200	⊠ Yes	□ No	\square Not applicable
Nuts, namely: almonds (Amygdalus communis L.), hazelnuts (Corylus avellana), walnuts (Juglans regia), cashews (Anacardium occidentale), pecan nuts (Carya illinoinensis (Wangenh.) K. Koch), Brazil nuts (Bertholletia excelsa), pistachio nuts (Pistacia vera), macadamia or Queensland nuts (Macadamia ternifolia), and products thereof (5)	***	ú	⊠ Yes	□ No	□ Not applicable
Celery and products thereof	***			□ No	\square Not applicable
Mustard and products thereof			☐ Yes	⊠ No	☐ Not applicable
Sesame seeds and products thereof	444	5666		$\; \square \; No$	\square Not applicable
Sulphur dioxide and sulphites at concentrations of more than 10 mg/kg or 10 mg/litre in terms of the total SO2 (6)	Yes	Natural presence, depends on batch	⊠ Yes	□ No	□ Not applicable
Lupin and products thereof	+**	***	☐ Yes	⊠ No	\square Not applicable
Molluscs and products thereof	440	***	⊠ Yes	□ No	☐ Not applicable

The risk of cross contamination on Natural site and supplier site is avoided by cleaning procedures.

¹⁾ Exceptions: Wheat based glucose syrups including dextrose / Wheat based maltodextrins / Glucose syrups based on barley /Cereals used for making alcoholic distillates including ethyl alcohol of agricultural origin

⁽²⁾ Exceptions: fish gelatin used as carrier for vitamin or carotenoid preparation / fish gelatin or Isinglass used as fining agent in beer and wine

⁽³⁾ Exceptions: Fully refined soybean oil and fat / natural mixed tocopherols (E306), natural D-alpha tocopherol acetate, and natural D-alpha tocopherol succinate from soybean sources / vegetable oils derived phytosterols and phytosterol esters from soybean sources / plant stanol ester produced from vegetable oil sterols from soybean sources

 $[\]textit{(4) Exceptions: whey used for making alcoholic distillates including ethyl alcohol of agricultural origin / lactitol agr$

⁽⁵⁾ Exceptions: nuts used for making alcoholic distillates including ethyl alcohol of agricultural origin

⁽⁶⁾ In terms of the total SO2 which are to be calculated for products as proposed ready for consumption or as reconstituted according to the instructions of the manufacturers

EUROPEAN FOOD REGULATIONS

According to the manufacturer's declaration, this product is

EUROPEAN REGULATIONS		COME	PLIANT
Contaminants (Regulation 1881/2006/EC)	⊠ Yes	□ No	☐ Not applicabl
leavy metals (Regulation 629/2008/EC)	⊠ Yes	□ No	☐ Not applicabl
Pesticides (Regulation 396/2005/EC and 834/2007/EC)	⊠ Yes	□ No	☐ Not applicabl
extraction solvents (Directive 2009/32/EC)	☐ Yes	□ No	⊠ Not applicabl
PAH and benzoapyrene (Regulation 2015/1933/EC)	⊠ Yes	□ No	☐ Not applicabl
ood additive (Regulation 231/2012/CE and 1333/2008/EC)	☐ Yes	□ No	⊠ Not applicabl
FOOD GRAD	E		
ccording to the manufacturer's declaration, this product is:			
STATEMENTS			
Food grade	⊠ Yes	□ No	□ Not specified
Gluten free (<20mg/kg - Regulation 828/2014)	□ Yes	\square No	⊠ Not analyzed
Suitable for vegetarians	⊠ Yes	□ No	□ Not specified
Suitable for vegans		□ No	□ Not specified
Halal* (until 11/06/2021) - Organism : ARA Halal certification	⊠ Yes	□ No	□ Not specified
Kosher* (until /XX/XXXX)	☐ Yes	□ No	
Product certified by the supplier. Natural is not certified for	halal and ko:	sher prod	ucts.
NON-ANIMAL TESTING	STATE	MENT	
	· ·		
NON-ANIMAL TESTING	STATE	MENT	
NON-ANIMAL TESTING	ĭ Yes □ N	lo 🗆 1	Not specified

INFORMATIONS COMPLEMENTAIRES

OTHER INFORMATION

REGULATORY STATUS

The plant used for this product is approved in:

⊠ French decree - Arrêté plante du 24 juin 2014

☑ Belgian decree - Arrêté royal du 29/08/97 tel que modifié Février 2017

☑ Italian decree - Décret du 10 août 2018

☑ Other: Croatia

Europe : Risk of requalification as a medicinal product (According to EMA monograph) (National restriction possible)	No
Plant present in list B of the French Pharmacopoeia	No

If plant present listed in the list B of the French Pharmacopoeia: according to the Public Health Code, food supplements containing plant or parts of plants appearing on list B of the French Pharmacopoeia can't be sold by other people than pharmacists.

Country	Source	Plant part	Substance to be monitored	Additional information
Belgium	Positive list, Royal decree 29/08/97 as amended February 2017	Unicellular algae	frqgr	
France	Positive list, Law of 24 June 2014 Doctrine DGCCRF list of algae usable in food supplements January 2019, DGCCRF health recommendations Algae in food supplements January 2019	All parts	lodine, microcystines, Beta-carotene, iron, phycocyanin	Recommendations algae from DGCCR The iodine content of the finished product must be known and must no exceed the content considered safe. I case of presence of iodine, recommended warning: Not recommended for people with thyroidisorders. For microalgae, the presence of cyanobacteria should be sought, especially the amount of microcystin should not exceed 1 μg/g. In case of presence of microcystines, recommended warning: Not recommended for children. Iodine (recommended: ≤ 150 μg)

NOVEL FOOD*

Arthrospira platensis is :
☑ Used before 15 May 1997 (according to Novel food catalogue**):
☐ As food or food ingredient, so is not subject to the Novel Food Regulation (possible national restrictions).
☐ Only as or in food supplements, so is not subject but other food use has to be authorized pursuant to the Novel Food Regulation (<i>possible national restrictions</i>).
□ Not used before 15 May 1997 and:
☐ Authorized and Listed in the Union List of Novel Foods in accordance with Regulation (EU) 2017/2470
☐ Request in progress, further information is required.
\square Not authorized. Therefore, before it may be placed on the market in the EU as a food or foodingredient a safety assessment under the Novel Food Regulation is required.
\square No information available - Not in the positive list or in Catalogue of Novel Food at the date of writing
* Indicative information

^{**} The Novel Food Catalogue lists products of animal and plant origin and other substances subject to the Novel Food Regulation, based on information provided by the EU Member States. It is a non-exhaustive list and serves as orientation on whether a product will need an authorization under the Novel Food Regulation (national restriction are possible)"

ALERTE RASFF*

RASFF alert known on the product on the date of updating the data sheet:
□ No
☑ Yes, see below:
* Indicative information

Classification	Date of case	Reference	Notifying country	Subject	Product category	Туре	Risk decision
Alert	28/10/2020	2020.4595	Estonia	sulphite (19 mg/kg - ppm) undeclared on spirulina tablets from Hungary	dietetic foods, food supplements, fortified foods	Food	Serious
Information for intention	24/12/2019	2019.4639	Poland	Polycyclic aromatic hydrocarbons (84.4 µg/kg - ppb) in spirulina powder from China	dietetic foods, food supplements, fortified foods	Food	Not serious
Information for follow-up	11/12/2015	2015.1579	Czech Republic	unauthorised irradiation of spirulina tablets from China	dietetic foods, food supplements, fortified foods	Food	Not serious

FICHE DE SÉCURITÉ Material Safety Data Sheet

Material Safety Data Sheet contains information about employee health protection and safety. MSDS apply to dangerous substances and blends containing dangerous substances. MSDS aim at keeping the uses attention on the dangers and the caution related to the product and its conservation.

The above-mentioned substance or preparation does not meet the criteria for classification as dangerous (European regulation n° 1272/2008 and its modifications) and therefore is not subject to the obligation to provide a Material Safety Data Sheet (European regulation n°1907/2006 and its modifications).

This statement is based on our current knowledge at the date indicated on this document. Attention of the users is required on potential risks caused by a usage of the product that would differ from what it was conceived for. Specifically, this item is intended for an industrial application, must not be consumed as is, and must be handled with the usual precaution.

Natural Pullulan Capsules

General parameters					
Description	Empty, two-piece, cylindrical hard natural capsules, typical in taste and odour.				
Manufacturer	Shanxi Guangsheng Medicinal Capsule Co., Ltd.				
Manufacturer certifications	BRC, NSF-GMP, ISO9001, ISO14001, OHSAS18001, Halal, and Kosher				
Legal status	EU legislation for food supplements	Country of origin	China		
Composition	Pullulan (FCC & E-1204) and purified water (Ph. Eur.)				
Colour range	Clear transparent and opaque, with colours according to agreement				
Imprint	Text and colour according to agreement	Ink type	Edible		
Excipients	Gellan gum, xanthan gum, carrageenan, and potassium chloride.				

Gellan gum, xanthan gum, carrageenan, and potassium chloride.

The excipients are suitably controlled by the rules laid down by Commission Regulation 1333/2008/EC on food additives; however they are not required to be included in the list of ingredients as they serve no technological function in the finished capsules (Commission Regulation 1169/2011/EU, Article 20 (b)[ii]).

Galenic properties (AQL-defect rate: Critical: 0.01 %, Major: 0.10 %, Minor: 0.40 %, on fully automatic testing machines)					
Size	000	00	0	1	
Weight, mg	186 ±9	140 ±8	108 ±7	78 ±6	
Volume, cc	1.35	0.93	0.68	0.50	
Dose (mg/capsule) as function of bulk density					
- 0.6 g/cc	810	558	408	300	
- 0.8 g/cc	1080	744	544	400	
- 1.0 g/cc	1350	930	680	500	
- 1.2 g/cc	1620	1116	816	600	
Length, mm					
- Cap	13.1 ±0.4	11.8 ±0.4	10.9 ±0.4	9.8 ±0.4	
- Body	22.0 ±0.4	20.2 ±0.4	18.6 ±0.4	16.5 ±0.4	
- Overall closed (filled)	25.7 ±0.5	23.4 ±0.5	21.7 ±0.5	19.3 ±0.5	
External diameter, mm					
- Cap	9.85 ±0.05	8.55 ±0.05	7.66 ±0.05	6.95 ±0.05	
- Body	9.49 ±0.05	8.20 ±0.05	7.35 ±0.05	6.65 ±0.04	
Single wall thickness, mm					
- Cap	0.115 ±0.02	0.105 ±0.02	0.100 ±0.02	0.100 ±0.02	
- Body	0.110 ±0.02	0.105 ±0.02	0.100 ±0.02	0.095 ±0.02	

For elongated or other sizes: please request our full dimensions table.

Analytical parameters					
Galenic properties					
Disintegration time	≤ 30 min. (EP, 37°C, guid	led disc)			
Chemical					
Arsenic (As) Lead (Pb) Cadmium (Cd) Mercury (Hg) Sulphated ash, clear trans. Sulphated ash, opaque Loss on drying	NMT 1.0 mg/kg NMT 1.0 mg/kg NMT 1.0 mg/kg NMT 0.1 mg/kg NMT 2.0% w/w NMT 5.0% w/w 10.0 to 15.0 % w/w	105°C, 4 hours or cons	stant weight		
Microbiology					
Total viable count Yeasts and moulds Enterobacteria E. coli Salmonella Staphylococcus aureus Pseudomonas aeruginosa	≤ 1000 cfu/g ≤ 100 cfu/g ≤ 100 cfu/g Negative in 1 g Negative in 10 g Negative in 1 g	Ph. Eur. 2.4.12./13 or e	equivalent		
Packaging					
Size	000	00	0	1	
Capsules/box	50 000	70 000	100 000	125 000	
Packaging material	Double polyethylene for	ood grade bag in stur	rdy cardboard-box		
Box dimensions	585 x 385 x 730 mm (length x width x height)				
Storage and handling					
Storage	Store between 10°C and 25°C and relative humidity (RH) between 35% and 65%, in tightly closed packing, protected from direct light.				
Pre-filling	Recommended storage between 20°C and 24°C and RH between 45% and 65% at least 12 hours before opening.				
Handling and filling	Temperature between 20°C and 24°C and RH between 45% and 65% during usage.				
	Use only stainless stee	el scoops and spatula	as.		
	Do not leave capsules in a filling machine hopper for prolonged period, when not in use. Keep mouth of the bag closed when not in use.				
Shelf life	5 years from date of m	anufacturing, when s	stored and handled as d	escribed.	