

09-03-1001DOC	Technical Data Specification
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Product Code:	BULK03SPIRULINA	Technical Data Specification ID:	TDS-BULK03SPIRULINA	Issue:	5
Product Name:	BULK ORGANIC SPIRULINA POWDER			Date:	22/05/2024

PRODUCT INFORMATION

BOTANICAL NAME	Arthrospira (spirulina) Platensis
COUNTRY OF ORIGIN	China
BRIEF DESCRIPTION	<p>Spirulina is a natural, blue-green algae that harnesses energy from sunlight to fuel its growth. As one of the most protein-dense plant foods available and a rich source of micronutrients, it really is one of the world's best, and original, superfoods. Cultivated and harvested in pure, freshwater pools, our minimally processed spirulina is dried into a naturally nutritious powder.</p> <p>Our Organic Spirulina Powder is certified to EU Organic Standards according to Regulation (EU) 2018/848 and Great British Organic Standards by the Soil Association under the code GB-ORG-05.</p>
INGREDIENTS	100% Organic Spirulina Algae
INTENDED USE	Ready to eat or as an ingredient
SUGGESTED USE	Take up to 15g per day.
PACKAGING/ NET WEIGHT	Food contact foil compound bag in cardboard box/ 20kg
SHELF LIFE & STORAGE	30 months when properly stored. Store in a cool, dry area, do not freeze, and keep away from strong, direct sunlight.

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NUTRITIONAL INFORMATION

Nutrition	Per 100g	Units	%RI
Energy	1396/330	kJ/kcal	
Fat	0	g	
of which saturates	0	g	
of which mono-unsaturated	0	g	
of which polyunsaturated	0	g	
Carbohydrate	15	g	
of which sugars	0	g	
Fibre	9.1	g	
Protein	63	g	
Salt	2.7	g	
Vitamin A	1204	µg	151%
Vitamin K1	564	µg	751%
Riboflavin (B2)	0.69	mg	61%
Vitamin (B6)	0.44	mg	51%
Magnesium	294	mg	78%
Iron	31.9	mg	228%
Chromium	109	µg	273%

AUTHORISED HEALTH BENEFITS BASED ON MICRONUTRIENTS

Micronutrients in this product contribute to:

- ✓ reduction of tiredness and fatigue
- ✓ normal formation of red blood cells and haemoglobin
- ✓ normal muscle function
- ✓ **normal protein synthesis**
- ✓ normal psychological function
- ✓ the maintenance of normal bones
- ✓ the maintenance of normal teeth
- ✓ the process of cell division
- ✓ normal metabolism of iron
- ✓ normal oxygen transport in the body
- ✓ normal function of the immune system
- ✓ normal cysteine synthesis
- ✓ normal psychological function
- ✓ process of cell specialization
- ✓ normal mucous membranes
- ✓ maintenance of normal vision
- ✓ normal macronutrient metabolism
- ✓ normal cognitive function
- ✓ normal energy-yielding metabolism
- ✓ the maintenance of normal blood glucose levels
- ✓ normal functioning of the nervous system
- ✓ the maintenance of normal mucous membranes
- ✓ the maintenance of normal red blood cells
- ✓ the maintenance of normal skin
- ✓ the maintenance of normal vision
- ✓ the normal metabolism of iron
- ✓ normal homocysteine metabolism
- ✓ **normal protein and glycogen metabolism**
- ✓ normal red blood cells
- ✓ maintenance of normal skin
- ✓ contributes to electrolyte balance

We periodically review our nutrition information based on a risk assessment to account for seasonal variability, growing condition and other factors that cause nutrition result to vary. Please find our updated TDS.

The nutritional information provided in this document is based on nutritional testing and on average, as required by regulation (EC) No 1169/2011.

The information is not meant to ensure warranty of characteristics. It comes without commitment and is not valid for any claim of warranty and product liability respectively.

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ORGANOLEPTIC PROPERTIES

<i>Appearance/Texture</i>	Fine Powder
<i>Flavour</i>	Mild, Like Seaweed
<i>Aroma</i>	Characteristic
<i>Colour</i>	Dark Green

DIETARY INFORMATION

PHYSICAL CHARACTERISTICS

<i>Particle Size (mm)</i>	120
<i>Foreign Materials</i>	Absent
<i>Density</i>	N/A

CHEMICAL CHARACTERISTICS

<i>Moisture</i>	Max. 8%
<i>Ash</i>	Max. 8%
<i>Water Activity</i>	Max. 0.4

MICROBIOLOGICAL CHARACTERISTICS

Name	Maximum Limit	UoM
<i>Plate Count</i>	≤1000000	cfu/g
<i>Yeast</i>	≤10000	cfu/g
<i>Mold</i>	≤10000	cfu/g
<i>E. Coli</i>	≤20	cfu/g
<i>Salmonella</i>	Not Detected	/25g
<i>Bacillus Cereus</i>	≤10000	cfu/g
<i>Listeria</i>	Not Detected	/25g
<i>Clostridium Perfringens</i>	≤10000	cfu/g
<i>Staphylococcus Aureus</i>	≤10000	cfu/g
<i>Enterobacteriaceae</i>	≤10000	cfu/g

Diet	Suitable For	Certified?	Comments
Organic	Yes	Yes	
Vegetarian	Yes	Yes	
Vegan	Yes	Yes	
Jewish / Kosher	Yes	Yes	
Muslin / Halal	Yes	No	Suitable but not certified

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ALLERGEN STATEMENT

We hereby certify that this product sold by us may contain naturally occurring sulphites. The list of allergens which are likely to cause adverse reactions in susceptible individuals is provided in Annex II of Regulation (EU) No 1169/2011. Please note that this statement is based on the information provided by the manufacturer of the product.

ALLERGEN COMPONENT	PRESENT (as an Ingredient)	ABSENT AS INGREDIENT (on Same Line)	PRESENT IN PROCESSING PLANT	SOURCE OF ALLERGEN
Celery & product there	No	No	No	-
Cereals Containing Gluten	No	No	No	-
Crustaceans	No	No	No	-
Eggs	No	No	No	-
Fish	No	No	No	-
Lupin	No	No	No	-
Milk	No	No	No	-
Molluscs	No	No	No	-
Mustard	No	No	No	-
Nuts	No	No	No	-
Peanuts	No	No	No	-
Sesame Seeds	No	No	No	-
Soybeans	No	No	No	-
Sulphur Dioxide & Sulphites	No	No	No	*See comment section
Comments:	Spirulina may contain naturally occurring sulphites. The list of allergens which are likely to cause adverse reactions in susceptible individuals is provided in Annex II of Regulation (EU) No 1169/2011. Sulphur dioxide and/ or sulphites at concentrations of more than 10mg/kg or 10mg/L (litre) 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.			

CONTAMINANTS

Heavy Metals (lead, cadmium, mercury, tin, arsenic)
Mycotoxins (aflatoxins, ochratoxin A, patulin)
Nitrates
Polycyclic Aromatic Hydrocarbons (PAH)
Melamine

According to Regulation (EC) No 2023/915
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PACKAGING

Packaging description	BOPA/AL/LDPE compound bag in Cardboard Box				
Pack size	5kg per bag; 4 bags in a box				
Objective Criteria	N/A				
Material Specification					
Primary packaging	BOPA/AL/LDPE compound bag				
Print (Litho/Flexo)	N/A				
Colours	Silver				
Material	BOPA/Aluminium/LDPE				
Packaging dimension in mm (L*W*H)	380 x 190 x 160			Thickness	0.1mm
Weight of packaging	0.05kg				
Content of plastic food contact material (%)		50%	Content of metal & rubber (%)		50%
Recyclability	Partly-recycled (50%)				
Lamination/Layers	N/A		Coating	N/A	
Sealing method	Heat Sealing				
Secondary packaging	Cardboard Box				
Print (Litho/Flexo)	N/A				
Colours	Brown				
Material	Corrugated				
Packaging dimension in mm (L*W*H)	390 x 335 x 380			Thickness	5mm
Weight of packaging	1.8kg				
Content of plastic food contact material (%)		0%	Content of metal & rubber (%)		N/A
Recyclability	100% Recycled				
Lamination/Layers	N/A		Coating	N/A	
Sealing method	N/A				

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Quality, Regulatory & Brand Integrity Compliance

Category	Compliance Criteria	Yes/No/N/A
Good Manufacturing Standards	The packaging meets hygiene and traceability requirements Regulation (EC) No. 2023/2006 on good manufacturing practice. FCMs should be manufactured in compliance with general and detailed rules on good manufacturing practice (GMP).	Yes
Paper & board	Quality assurance system, quality control system, and documentation system is established, implemented, and maintained.	
	The packaging supplier is GFSI certified to demonstrate GMP in the manufacturing process.	No
	The packaging is chlorine free (TCF) or elemental chlorine free (ECF)	Yes
	Photo initiators –including benzophenone (4 methyl benzophenone) are not used	Yes
Printed packaging	Acrylamide is not used in printers and board mills	Yes
	low odour and migration inks and varnishes to ensure migration legislative limits on benzophenone and its derivatives are met	N/A
Packaging chemical migration test	ITX is not used as a photo initiator in printed inks	N/A
	Migration tests for packaging materials available.	Yes
Non-intentionally added substances (NIAS)	The packaging migration test include all legislatives chemical and Tinuvin UV absorber, phthalates and monomers – SVHCs Phthalates in plastic foils and bags	Yes
	The packaging is free from impurities that may be non-intentionally added to food-contact packaging material including substances such as contaminants, reaction and degradation products	Yes
Nano particles	The packaging does not contain or consist of engineered nanoparticles	Yes
PVC & PVCD	The plastic material is free from PVC	Yes
Mineral Oil Hydrocarbons	Migration of Mineral Oil Hydrocarbons (MOH), must meet German MOSH Benchmark Levels (send test report) and EU limits on MOAH	Yes
Chemical substance of very high concern (SVHC)	The packaging does not contain or use acrylamides, novolac glycidyl ethers, perfluoro-octane sulphonate, phthalates, NOGE, PFOS & PFOAS, PVC and Derivatives, Semi-carbazides, 4-methylbenzophenone	Yes
Additives	The material complies with EU food contact material legislation and does not contain dual additives chemicals e.g., Phosphoric Acid or Sulphur Dioxide	Yes
Recycled plastics	Comply with New Regulation (EU) 2022/16161 on recycled plastic materials and articles intended to come into contact with foods.	N/A
Bisphenol A	Does the packaging material for organic raw material contain Bisphenol in plastics and epoxy resin?	No
Metallized & rubber packaging e.g., foil bags	Packaging material does not contain Bisphenol and meet the limits Bisphenol A (BPA) BADGE, BFDGE, NODGE	Yes
Compostable packaging	The compostable/biodegradable packaging complies with European Standard for Compostable Packaging (EN13432)	N/A

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The packaging is in accordance with the EU Legislation:

- Council Directive on Packaging and Packaging Waste 94/62/EC and its consecutive amendments.
- Commission Regulation (EC) No 1935/2004 on Materials and Articles Intended to Come into Contact with Food and its consecutive amendments.
- Commission Regulation (EU) No 10/2011 on Plastic Materials and Articles Intended to Come into Contact with Food and its consecutive amendments.

GMO FREE

This product is not subject to genetic modifications. Process controls are in place to ensure no accidental contamination with genetically modified materials, or materials derived thereafter, can occur. We hereby certify that this product is not subject to labelling under EU Regulations 1829/2003/EC and 1830/2003/EC on genetically modified food and feed.

WADA Statement

We declare that our products do not contain any of the substances mentioned in the Yearly updated “Prohibited List” from the World Anti-Doping Agency.

PESTICIDES

This product complies with the requirements outlined in Regulation (EU) 2018/848 of the European Parliament and of The Council (and consecutive amendments). It also complies with Soil Association strict organic farming standards. During the manufacturing process the product and the packaging materials are not exposed to pesticides or pesticide residues. Pesticides are not stored on site, nor used in the manufacturing or warehousing areas.

IRRADIATION AND ETHYLENE OXIDE

We declare that the product listed above is not treated with ionizing radiation (r2) or ethylene oxide (EtO) for any purposes and as such are free of gamma ray and ethylene oxide residue and complies with the EU regulation 1999/3/EC

BSE STATEMENT

This product is manufactured exclusively from plant source, and does not contain any components from animal origin. It has not been derived from any animal source, and has not come into contact with any components of animal origin.

RESIDUAL SOLVENTS

No residual solvents are used in the manufacturing process.

LEVEL OF UNDESIRABLE SUBSTANCES

The strictly controlled production process of this product ensures that the undesirable substances levels (heavy metals, PAH, mycotoxins, etc.) are below the limits identified by EU legislation (No 2023/915 on maximum levels for certain contaminants in food and consecutive amendments, Commission Regulation No 2073/2005, including the recommendations provided by EFSA on food contaminants.

ANIMAL TESTING STATEMENT

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our supplier confirms that they do not conduct or commission animal testing of any products.

ENDANGERED SPECIES OF FAUNA AND FLORA

None of our products are listed as banned on the world Convention on International Trade of Endangered Species of Fauna and Flora (CITES).

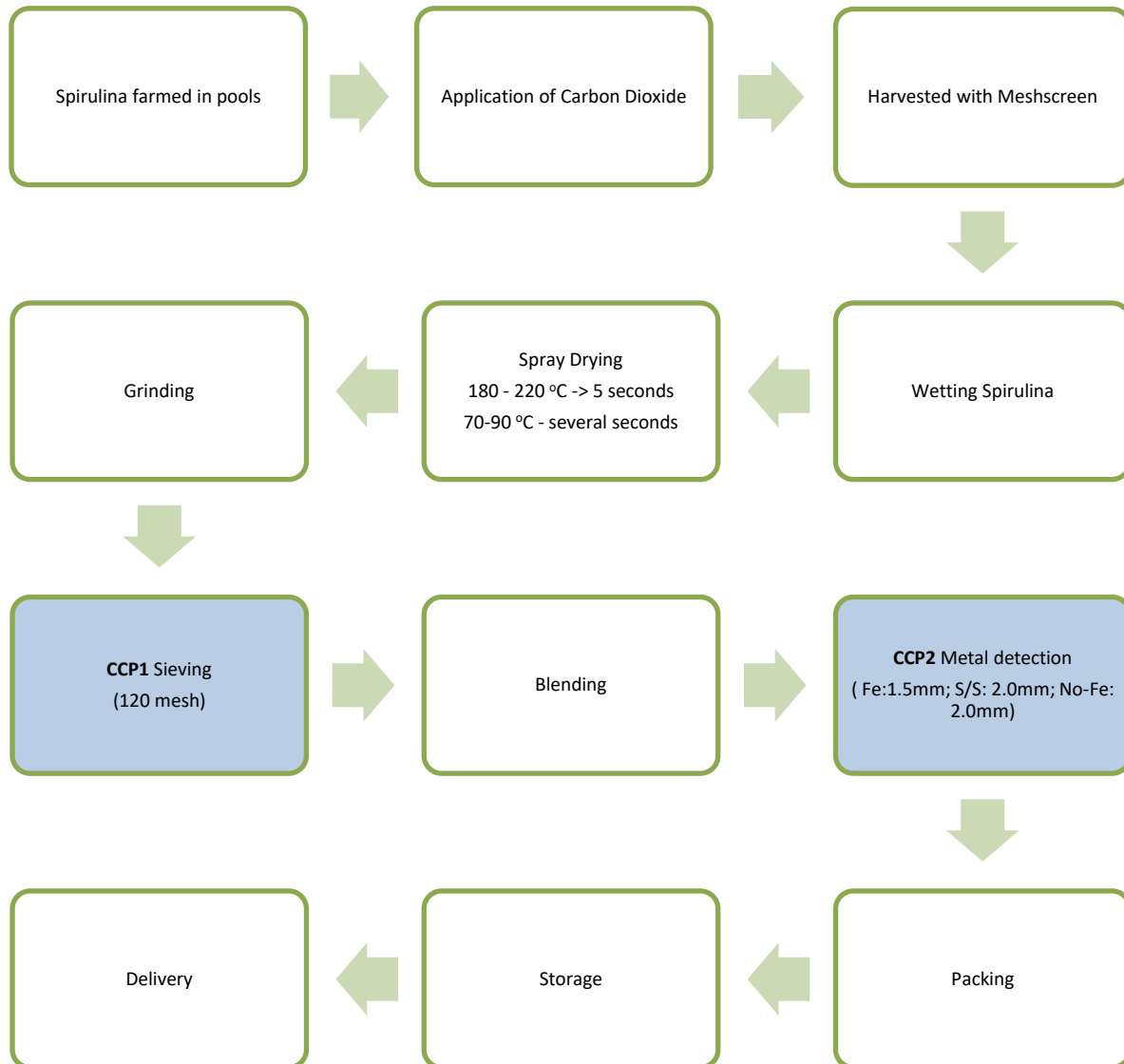
NOVEL FOODS

This product complies with the Regulation (EU) 2015/2283 of the European Parliament and of the Council of 25 November 2015 on novel foods, amending Regulation (EU) No 1169/2011 of the European Parliament and of the Council and repealing Regulation (EC) No 258/97 of the European Parliament and of the Council and Commission Regulation (EC) No 1852/2001.

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PROCESS FLOW



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MATERIAL SAFETY DATA SHEET

INGREDIENTS	100% Organic Spirulina Algae
HAZARD IDENTIFICATION	Not classed as hazardous
FIRST AID MEASURES	
SKIN	Wash with plenty of water.
INGESTION	Seek medical attention if required.
INHALATION	Remove exposure. Seek medical attention if required.
EYES	Wash out with plenty of water / eye solution. Seek medical attention if irritation persists
FIRE FIGHTING MEASURES	
EXTINGUISHING MEDIA	Use appropriate media relating to other components of fire- can use: water spray, foam, dry chemical or carbon dioxide.
SPECIAL HAZARDS OF PRODUCT	Not Flammable - The rate of burning is less than 2.2mm/ s.
PROTECTIVE EQUIPMENT FOR FIREFIGHTING	Wear full protective clothing and self-contained breathing apparatus.
ACCIDENTAL RELEASE MEASURES	
SPILLAGES	Treat as any other food material
PERSONAL PRECAUTIONS	No special procedures identified
ENVIRONMENTAL PRECAUTIONS	Minimize contamination of drains, surface and ground waters.
HANDLING AND STORAGE	
HANDLING	Handle under good hygiene procedures as with any food material.
STORAGE	Store in a cool, dim, dry place. Use pallet storage which is 20cm away from the ground and 30cm away from the wall. Ensure adequate ventilation.

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EXPOSURE CONTROL / PERSONAL PROTECTION

BODY PROTECTION	Normal work wear
SKIN PROTECTION	Rubber / PVC gloves
EYE PROTECTION	Goggles may be required
RESPIRATORY PROTECTION	Respiratory protection may be required

PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	Fine Powder
SOLUBILITY IN WATER	No
BULK DENSITY	0.45-0.65mg/ml
AUTO-FLAMMABILITY	Apyrous

STABILITY AND REACTIVITY

STABILITY	Stable under normal conditions. Avoid exposure to air, light and humidity.
CONDITIONS TO AVOID	None Identified.

TOXICOLOGY INFORMATION

EYE CONTACT	May cause slight irritant
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ECOLOGICAL INFORMATION

This product is ultimately biodegradable.

DISPOSAL CONSIDERATIONS

Dispose of according to relevant local / national guidelines.

TRANSPORT INFORMATION

Non-hazardous for air, sea and road freight.

REGULATORY INFORMATION

No data

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ADDITIONAL INFORMATION

This Product is 100% Natural; it is not considered hazardous.

This is an agricultural product; therefore, some batch variation may occur in terms of colour, flavour, odour, appearance and composition based on the growing conditions and seasonal variability.

DISCLAIMER

- The information in this document is believed to be true and accurate at the time of creation, however all statements contained in this document are made without warranty. The information contained herein is based on the present state of our knowledge and is intended to describe our product from the point of safety requirements. Therefore, it should not be construed as guaranteed specific properties of the product described.
- The entirety of the potential methods of use is not within our control and therefore no responsibility or liability will be assumed for use of this product.
- Our product specification may be subject to change without notice.

Version No:	Review Date:	Reason for the change	Changed by:	Authorized by:
4	21/09/2023	Spirulina allergen statement added.	G. Worrall	J. Chang
5	22/05/2024	Update to new template	E. Sam	T. Kufa

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Specification Agreement and Authorization

Please sign and return this page within 14 days of receipt of the specification.

If after a total of 28 days from the receipt of the specification we have not received either the signed acceptance page or discussed and recorded any derogation or deviation from this specification, we will deem that the specification has been accepted.

No further contact regarding formal approval of this specification will be made.

For our Supplier	Name	Position	Signature	Date
	Takudzwa Kufa	Technical & Operations Director	<i>T. Kufa</i> I have authorized this form electronically	13/10/2023
Customer	Name	Position	Signature	Date