Our Core products, many which we hold in stock, are carefully selected through our Approval Scheme. They include: Vitamins • minerals • fish oil concentrates • key herbal extracts • antioxidants • greens • superfood blends made to order and some worldwide used Trademarked items which are backed by science and more.

GEE LAWSON PRODUCT MASTER FILE

SPECIFICATION

ITEM	SPECIFICATION
Product name	SPIRULINA TABLETS 500 MG - CERTIFIED ORGANIC
Code	SC 2000439 SAP 40021061
Shape	Round/oval
Average weight	500 mg/tablet
Thickness	4.9 . 5.4 mm
Hardness	2.5 . 5.0 kg/sq.cm
Friability	NMT 1.0%
Protein	56 -69%
Moisture	2.5 . 4.5 %
Minerals	6.0 . 9.0%
Total carotenoids	360 . 500 mg/100g
Beta carotene	140 . 200 mg/100g
Xanthophylls	180 . 300 mg/100kg
Crude phycocyanin	15.0-19.0 %
Chlorophyll %+	1.1 . 1.5%
Total pheophorbide	NMT 0.12%
Existing pheophorbide	NMT 0.08%
Light filth	NMT 50/50g
Lead	NMT 0.20 ppm
Arsenic	NMT 0.50 ppm
Cadmium	NMT 0.20 ppm
Mercury	NMT 0.05 ppm
Standard plate count	NMT 50,000 cfu/g
Yeast and mould	NMT 100 cfu/g
Coliforms (enterobacteriaceae)	Negative/ 25g
E.Coli	Negative/ 25g



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for Central, Southern and Eastern Europe enquiries.







NUTRITIONAL DIVISION

Salmonella	Negative/ 25g
Staphylococcus	Negative/ 25g
Microcystin	< 0.5 ppb
Storage	Store in a cool and dry place.
Shelf life	36 months

OTHER DATA

ITEM	Data
Origin	Algae
CAS Number	Not applicable
Botanical name	Arthrospira platensis
Part(s) of plant used	Not applicable
Extraction solvent	Not an extract
Extraction ratio	Not applicable
Particle size	See above microscopic specification
Bulk density	See above specification
Solubility in water	Not soluble
Country of Origin	India
Storage conditions	Store in a cool dry place. Do not leave the bags in an open condition to avoid external contamination. Once opened flush the bags with nitrogen and reseal for preventing nutrient deterioration and for further storage.

Ingredients	Approx. Content (%)	
Spirulina powder	500 mg +/- 5% per tablet	

ALLERGENS

Ingredient	Yes	No	Quantity/Additional Information
Celery / Other umbelliferae or products thereof		1/2	
Cereals containing Gluten (wheat, rye, barley, oats, spelt, kamut or their hydrolysed strains) or products thereof		1/2	
Crustaceans/shellfish or products thereof		1/2	
Eggs or products thereof		1/2	
Fish or products thereof		1/2	
Milk or Milk products (including lactose)		1/2	
Mustard or products thereof		1/2	



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Nuts or products thereof	1/2	
Peanuts or products thereof	1/2	
Sesame seeds or products thereof	1/2	
SO ₂ or Sulphite at concentrations over 10mg/kg or 10mg/L express as SO ₂	1/2	
Soyabeans or products thereof	1/2	
Molluscs or products thereof	1/2	
Lupins or products thereof	1/2	

REGULATORY STATUS

ITEM	INFORMATION
Extraction Solvents	Complies with Directive 2009/32/EC
Pesticides	Pesticide free
Mycotoxins	Not applicable
PAHaş	Complies with regulation EC/1881/2006/ and amendments thereof, where applicable
Dioxins, Furans, Dioxins like PCBs and Non dioxin like PCBs	Not applicable
Heavy Metals	Complies with regulation EC/1881/2006/ and amendments thereof, where applicable
Arsenic	m0.5 ppm
BSE/TSE	Free from BSE/TSE
GMO Status	Does not have to be labelled as a GMO according to regulations EC/1829/2003 and EC/1830/2003
Irradiation Status	Non Irradiated
Melamine	Complies with regulation EC/1881/2006/ and amendments thereof, where applicable
Ethylene Oxide	Absent
Vegetarian Status	Suitable for Vegetarians
Vegan Status	Suitable for Vegans
Kosher certified	Yes
Halal certified	Yes
Applications	Suitable for use in food supplements



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NUTRITIONAL DIVISION

NUTRITIONAL INFORMATION

Nutrient	Units/100 g	Value	
Energy	Kcal	290	
	Kj	1218	
Protein	g	57	
Carbohydrate	g	23	
Of which - Sugars	g	3	
Polyols	g	-	
Starch	g	-	
Fat	g	7	
Of which . Saturates	g	2	
Mono-unsaturates	g	-	
Polyunsaturates	g	-	

Signed

Dr Julian Domszy Technical Manager

Date: 25th February 2014

The information contained in this document is based upon information provided by the manufacturer of the product and upon our own knowledge and from testing where relevant. Every effort has been made to ensure that the information is true and accurate but no guarantees are given or implied.

APPENDIX

Manufacturing flow diagram Typical Certificate of Analysis Material Safety Data Sheet



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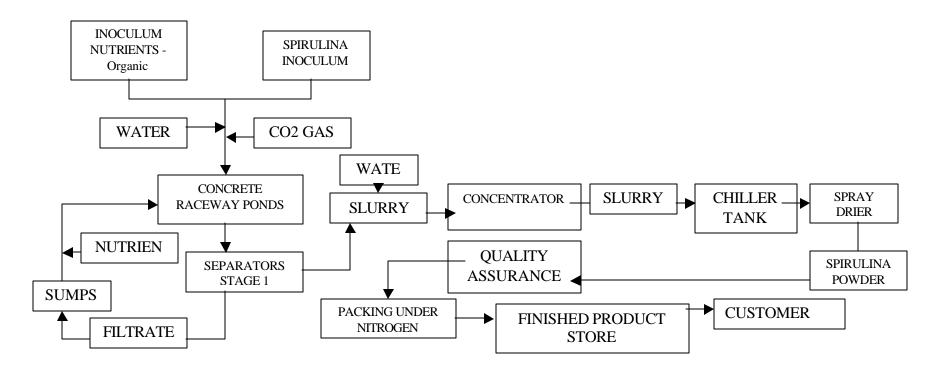
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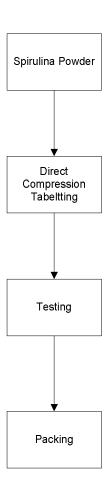
PROCESS FLOW CHART FOR SPIRULINA POWDER PRODUCTION



Spirulina process starts from inoculation of the production ponds with the addition of the culture with nutrients and water. The Spirulina grown in the ponds are removed by separators which remove the Spirulina slurry and the filtrate is sent to the ponds. The slurry is further washed and concentrated in the second stage of separators. The slurry is stored in a chiller tank and spray dried into powder form. The Spirulina powder undergoes tests and is cleared by quality assurance. Spirulina powder is granulated when required by customers and is once again tested by quality assurance. The powder is packed under nitrogen conditions, stored and shipped.



MANUFACTURE OF SPIRULINA TABLETS FROM SPIRULINA POWDER





CERTIFICATE OF ANALYSIS

Product Spirulina Tablets 500mg (Certified Organic)

Batch Number PO-CN-059/13-14

SAP Code 40021061
Manufacturing Date January 2014
Expiry Date January 2017

ITEM	SPECIFICATION	RESULTS
Shape	Round/Oval	Round
Average Weight (mg/tablet)	500	503
Thickness (mm)	4.9 . 5.4	5.12
Hardness (kg/sq.cm)	2.5 . 5.0	5.0
Friability (%)	NMT 1.0	0.008
Protein	56 - 69%	64.11%
Moisture	2.5 . 4.5%	4.38%
Minerals Ash	6.0 . 9.0%	7.65%
Total Carotenoids	360 - 500mcg/g	406 mcg/g
Beta Carotene	140 . 200 mcg/g	167 mcg/g
Xanthophylls	180 . 300 mcg/g	239 mcg/g
Crude Phycocyanin	15.0 . 19.0%	15.72%
Chlorophyll ±Aq	1.1 . 1.5%	1.27%
Total Pheophorbide	<u><</u> 0.12%	0.006%
Existing Pheophorbide	<u><</u> 0.08	0.005
Light Filth	≤ 50 /50g	6g
Lead	≤ 0.20ppm	Complies
Arsenic	≤ 0.50ppm	Complies
Cadmium	≤ 0.20ppm	Complies
Mercury	≤ 0.05ppm	Complies
Standard Plate Count	≤ 50 000 cfu/g	3050 cfu/g
Yeast and Mould	≤ 100 cfu/g	15 cfu/g
Salmonella	Negative	Negative
Staphylococcus aureus	Negative	Negative
Coliforms (Enterobacteriaceae)	Negative	Negative
E.Coli	Negative	Negative
Microcystin	Not detectable	Not detectable

The above information is based on data received from the supplier/manufacturer of this product.



CERTIFICATE OF ANALYSIS

Product Spirulina Tablets 500mg (Certified Organic)

Batch Number PO-CN-059/13-14

SAP Code 40021061

Manufacturing Date January 2014 Expiry Date January 2017

NON-GMO AND NON-IRRADIATION STATEMENT

We include the instruction on all purchase orders that products should be NON-GMO and NON-IRRADIATED. We hold on file supplier statements on the GM status of their products. Under the requirements of due diligence we carry out testing for irradiation. Every care is taken to supply the correct product, however this statement should not relieve the buyer of their own responsibility under due diligence to ensure the goods are suitable for the purpose for which they are intended.

Approved by the QA Department

Checked by the QA Department on 07 February 2014

Signed on behalf of Gee Lawson Ltd., by Hannah Russell (QA Supervisor)



SPIRULINA POWDER

Page: 1

Compilation date: 24/12/2008

Revision date: 22/11/2012

Revision No: 4

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: SPIRULINA POWDER

CAS number: None
EINECS number: None
Index number: None

Synonyms: SPIRULINA PLATENSIS SPRAY DRIED POWDER

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of substance / mixture: Bulk Nutritional Product.

1.3. Details of the supplier of the safety data sheet

Company name: Gee Lawson Ltd

1st Floor, Melville House 8-12 Woodhouse Road

London N12 0RG

United Kingdom

Tel: +44 (0) 20 8343 5400

Fax: +44 (0) 20 8445 7529

Email: julian@geelawson.co.uk

1.4. Emergency telephone number

Emergency tel: +44 (0) 788 757 6080

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CHIP: This product has no classification under CHIP. **Classification under CLP:** This product has no classification under CLP.

2.2. Label elements

Label elements: This product has no label elements.

2.3. Other hazards

PBT: This product is not identified as a PBT substance.

Section 3: Composition/information on ingredients

SPIRULINA POWDER

Page: 2

3.1. Substances

Chemical identity: SPIRULINA POWDER

Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Wash immediately with plenty of soap and water.

Eye contact: Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist

examination.

Ingestion: Do not induce vomiting. Wash out mouth with water. Consult a doctor.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a

doctor.

4.2. Most important symptoms and effects, both acute and delayed

Skin contact: There may be mild irritation at the site of contact.

Eye contact: There may be irritation and redness.

Ingestion: Nausea and stomach pain may occur.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

4.3. Indication of any immediate medical attention and special treatment needed

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Water spray. Carbon dioxide. Dry chemical powder. Alcohol or polymer foam.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: In combustion emits toxic fumes.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact

with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Do not attempt to take action without suitable protective clothing - see section 8 of SDS.

Do not create dust.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Transfer to a closable, labelled salvage container for disposal by an appropriate

method. Wash the spillage site with large amounts of water.

SPIRULINA POWDER

Page: 3

6.4. Reference to other sections

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Ensure there is sufficient ventilation of the area. Avoid the formation or spread of dust in

the air. Avoid direct contact with the substance.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in cool, well ventilated area. Keep container tightly closed.

Suitable packaging: Must only be kept in original packaging.

7.3. Specific end use(s)

Section 8: Exposure controls/personal protection

8.1. Control parameters

Workplace exposure limits: No data available.

8.1. DNEL/PNEC Values

DNEL / PNEC No data available.

8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area. **Respiratory protection:** Respiratory protective device with particle filter.

Hand protection: Protective gloves.

Eye protection: Safety goggles. Ensure eye bath is to hand.

Skin protection: Protective clothing.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Powder

Colour: Green-blue

Odour: Characteristic odour

Evaporation rate: Negligible

Oxidising: Non-oxidising (by EC criteria)

Solubility in water: Slightly soluble

9.2. Other information

Other information: No data available.

Section 10: Stability and reactivity

SPIRULINA POWDER

Page: 4

10.1. Reactivity

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.

10.4. Conditions to avoid

Conditions to avoid: Direct sunlight. Heat. Moist air.

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

Section 11: Toxicological information

11.1. Information on toxicological effects

Toxicity values: No data available.

Symptoms / routes of exposure

Skin contact: There may be mild irritation at the site of contact.

Eye contact: There may be irritation and redness.Ingestion: Nausea and stomach pain may occur.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values: No data available.

12.2. Persistence and degradability

Persistence and degradability: Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

12.4. Mobility in soil

Mobility: Insoluble in water. Non-volatile.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT substance.

12.6. Other adverse effects

Other adverse effects: Negligible ecotoxicity.

SPIRULINA POWDER

Page: 5

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Observe all federal, state, and local environmental regulations.

Disposal of packaging: Clean with water. Dispose of as normal industrial waste.

NB: The user's attention is drawn to the possible existence of regional or national

regulations regarding disposal.

Section 14: Transport information

Transport class: This product does not require a classification for transport.

Section 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture

by the supplier.

Section 16: Other information

Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No

453/2010.

* indicates text in the SDS which has changed since the last revision.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive

and shall be used only as a guide. This company shall not be held liable for any

damage resulting from handling or from contact with the above product.