

Product Technical Dossier

Product	Vita-algae D™ 100,000iu/g Powder
CCL Product Code	P12360

Specification Details

	Specification	
Assay (As dried basis) Vitamin D3 Activity	90,000 – 110,000iu/g	
Appearance	Powder	
Colour	White-Off White/Yellowish	
Aroma	Characteristic	
Flavour	Characteristic	
Sieve Analysis % passed	Min 90% Pass 40 Mesh	
Loss on Drying	Max 5%	
Bulk Density	0.40 - 0.70g/ml	

Microbiological Limits

Total Viable Count	Max 1,000cfu/g	
Yeasts & Moulds	Max 100cfu/g	
E. Coli	Negative/g	
Salmonella	Negative/25g	
Staphylococcus Aureus	Negative/g	
Coliforms	Negative	

Heavy Metal Limits

Total Heavy metals	Max 3ppm	
Lead (Pb)	Max 0.5ppm	
Cadmium (Cd)	Max 0.1ppm	
Mercury (Hg)	Max 0.1ppm	
Arsenic (As)	Max 0.5ppm	
Chromium (Cr)	Max 0.1ppm	

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Additional Technical Information

Raw Material Full Botanical / Chemical Name	Vita-algae D™ 100,000iu/g	
The material is Food Grade	Yes	
Origin	Europe	
Country of Manufacture	China	
Dispersibility	Cold-water Dispersible	
Average Molecular weight	384.65g/mol (Vitamin D3)	
Molecular Formula	C ₂₇ H ₄₄ O (Vitamin D3)	
CAS Number	67-97-0 (Vitamin D3)	
EC/EINECS Number	200-673-2 (Vitamin D3)	
Shelf Life from Date of Manufacture	Min 2 Years	
Suitable for Vegetarians?	Yes	
Suitable for Vegans?	Yes	
Storage Conditions	Keep in a cool, dry place away from moisture and direct sunlight.	

Composition Origin, Function and Percentages

Ingredients	Function	% composition	Source
Vitamin D3 Crystal	Active	≥0.25%	Algae
Medium Chain Triglycerides	Carrier oil	10 – 11%	Fractionated Coconut Oil
Arabic Gum (E414)	Thickener	20-45%	Plant (Acacia)
Corn Syrup Solids	Binder	40-70%	Plant (Corn)
Silicon Dioxide (E551)	Anti-caking agent	0.2-1.5%	Synthetic
Sodium Ascorbate (E301)	Antioxidant	0.1~1%	Synthetic
Tocopherol Rich Extract (E306)	Antioxidant	0.01%-0.2%	Sunflower

Nutritional Data

Test	Value per 100g
Energy kJ / Kcal*	1720kJ / 411Kcal
Fat (g)	11 g
-Of which Saturates (g)	10 g
Carbohydrate (g)	48 g
-Of which Sugars (g)	-
Fibre (as Arabic gum*) (g)	30 g
Protein (g)	0 g
Salt (g)	

^{*}No universally accepted nutritional value exists for Arabic gum in Europe, therefore the FDAspecified value of 4Kcal/g has been used in calculating this table.

Please note that surveillance testing may mean that not all the parameters stated on this specification are tested for every batch.

The allergen information is supplied by the manufacturer, we have not tested for each individual allergen to ensure Product Code: P12360 Version: 8 Page 2 of 7

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they are not present. The information given is based on a documented risk assessment and is accurate to the best of our knowledge. If you intend to make a voluntary "free from" claim on your pack, additional testing may need to be carried out. For technical and labelling guidance, you should always speak to the competent authority for the market or member state in which the final products are placed.

Allergens	Product Contains YES/NO	Listed Item on Site at Manufacturer YES/NO	Where applicable, is there risk of cross- contamination? YES/NO or N/A
Peanuts and Peanut Derivatives (including possible cross contamination)	No	No	N/A
Nut and Nut Derivatives Almond (Amygdalus communis L.), Hazelnut (Corylus avellana), Walnut (Juglans regia), Cashew (Anacardium occidentale), Pecan nut (Carya illinoiesis (Wangenh.) K. Koch), Brazil nut (Bertholletia excelsa), Pistachio nut (Pistacia vera), Macadamia nut and Queensland nut (Macadamia ternifolia)	No	No	N/A
Sesame Seeds and Sesame Seed Derivatives	No	No	N/A
Milk and Milk Derivatives (including lactose)	No	No	N/A
Egg and Egg Derivatives	No	No	N/A
Cereals and Derivatives containing OR POTENTIALLY CONTAMINATED WITH Gluten (wheat, wheatgrass, faro, freekeh, spelt, kamut, rye, oats, barley, barley grass)	No	No	N/A
Soya and Soya Derivatives	No	No	N/A
Lupin and Lupin Derivatives	No	No	N/A
Mustard and Mustard Derivatives	No	No	N/A
Celery or Celery Derivatives (including Celeriac)	No	No	N/A
Fish and Fish Derivatives	No	No	N/A
Molluscs and their Derivatives	No	No	N/A
Crustaceans and their Derivatives	No	No	N/A
Sulphur Dioxide and Sulphites (E220, E228) at levels > 10mg/kg or 10mg/litre	No	No	N/A

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Additives / Contaminants / Dietary Requirements / Intolerances	Product Contains YES/NO	Listed Item on Site at Manufacturer YES/NO	Where applicable, is there risk of cross- contamination? YES/NO or N/A
Additives / E Numbers	Yes	Yes	Sodium Ascorbate (E301) Tocopherol Rich Extract (E306), Arabic Gum (E414), Silicon Dioxide (E551)
Antioxidants	Yes	Yes	Sodium Ascorbate (E301) Tocopherol Rich Extract (E306)
Ethylene Oxide	No	No	N/A
Gelatine	No	No	N/A
Flavourings (Artificial / Nature Identical / Natural / Smoked)	No	No	N/A
Maize / Corn and any Derivatives	Yes	Yes	Corn Syrup Solids
Legumes / Pulses	No	No	N/A
Rice and Rice Derivatives	No	No	N/A
Added Salt	No	No	N/A
Added Sugar / artificial or natural sweeteners	No	No	N/A
Aspartame	No	No	N/A
BHA / BHT (E320 / E321)	No	No	N/A
Caffeine	No	No	N/A
Colours (Artificial / Nature Identical / Natural / Smoked)	No	No	N/A
Dextrose	No	No	N/A
other Seeds and Seed Derivatives (Poppy Seeds, Cotton Seeds, Sunflower Seeds)	No	No	N/A
Kiwi fruit	No	No	N/A
Polyols (sugar alcohols)	No	No	N/A
grape fruit	No	No	N/A
Sorbic Acid (E200, E203)	No	No	N/A
Any other Preservatives	No	No	N/A
Ethanol	No	No	N/A
Honey	No	No	N/A
Lactose	No	No	N/A
Yeast and Yeast Derivatives	No	No	N/A
All Animal Products (Beef, Pork, Poultry or other) and Derivatives (which may include growth/yield hormones, antibiotics etc.)	No	No	N/A
Bovine Products or Derivatives (which may include growth/yield hormones, antibiotics etc.)	No	No	N/A

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Compliance Statements

Confirmation of BSE / TSE Status This is to certify that this product complies with all relevant current UK and EU Legislative requirements in regard to Transmissible Spongiform Encephalopathies (TSE) and Bovine Spongiform Encephalopathy (BSE) for human food, and so is free of TSE/BSE.	Yes
This is also to certify that, during the course of their manufacture, the above-mentioned product did not come into contact with any materials, which could be derived from TSE/BSE risk materials.	Yes
Confirmation of GM Status This is to certify that this product is not manufactured from GM raw materials and is therefore not subject to labelling under current regulations.	Yes
Confirmation of Non-Irradiation Status This is to certify that this product, whole or in part, has not been subjected to Ionising Radiation as per European Directives.	Yes
Confirmation of Nandrolone Status This is to certify that this product, whole or in part, has not come into contact with Nandrolone or any of its precursors in any way.	Yes
Confirmation of IOC Product Status This is to certify that this product, whole or in part, has not come into contact with any product/s, which is banned by the IOC (International Olympics Committee) and or WADA.	Yes
Confirmation of Animal Testing Status This is to certify that all the products sold by Cambridge Commodities have not been tested on animals in any part of its manufacture in accordance with current regulations.	Yes
Confirmation of Pesticides Status This is to certify that the above-mentioned product complies with the EU max residue limits (MRLs) on pesticides.	Yes
Confirmation of Nanoparticles Status This is to certify that unless otherwise stated, the above-mentioned product is free of nanoparticles. Commission Recommendation, defines as follows: "Nanomaterial means a natural, incidental or manufactured material containing particles, in an unbound state or as an aggregate or as an agglomerate and where, for 50 % or more of the particles in the number size distribution, one or more external dimensions is in the size range 1 nm - 100 nm".	Yes
Packaging Status We hereby certify that the packaging used in the above-mentioned material conforms to EU regulations and subsequent amendments on food grade packaging	Yes
Confirmation of PAH status This is to certify that the above-mentioned product complies with the max PAH limits set by the EU regulations	Yes

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Product Flow Chart

Vitamin D3 Oil preparation (Medium Chain Triglycerides, Tocopherol Rich Extract, Cholecalciferol), Corn Syrup Solids, Arabic Gum, Sodium Ascorbate

Mixing, Dissolution

↓
Pasteurisation ↑

↓
Homogenization

↓
Spray Drying

↓
Mixing with Silicon Dioxide

↓
Sieving ↑

↓
Packaging (↑ foreign body detection)

↓
Vita-algae D™ 100,000iu/g Powder

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Material Safety Data Sheet

To download this product's material safety data sheet, please click <u>here</u> and search for the Cambridge Commodities product code. If there is no MSDS available, please follow the on-screen instructions to request one.

The Information provided in this document is subject to change and the batch specific certificate of analysis should always be referenced.

To be used as per local legislation.

Change History

Version	Change	Customer Notification required Yes / No
1	First Issue	N/A
2	Confirmed source of Vitamin D3.	N/A
3	Changed country of origin from China to Europe.	N/A
4	Added Water Solubility and sample sizes for Salmonella, E. Coli and Staphylococcus Aureus.	Yes
5	 Amended the following: Additives table as Ethanol is not used in the production process, Total Viable Count from Max 3,000 cfu/g to Max 1,000cfu/g, Yeasts & Moulds from Max 300 cfu/g to Max 100cfu/g, Production flow chart. 	Yes
6	Amended composition breakdown and additives table accordingly. Updated production flow chart.	Yes
7	Changed Raw Material Full Botanical / Chemical Name from "Vita- algae D™ 1m iu/g" to "Vita-algae D™ 100,000iu/g"	
	Removed mention of keeping the product in storage below 4°C, Yes instructions from the manufacturer are to keep the product in a cool, dry place away from moisture and direct sunlight.	

Document Approval

Originator	Approver		
Anne Stevens Quality Administrator Quality Administrator	Ash Bayne Senior Quality Specialist		

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