

Product Technical Dossier

Product	Co Enzyme Q10 (Ubiquinone)
CCL Product Code	P0339

Specification Details

	Specification
Means of Identification	Positive
Assay	Min 98% - 101%
Appearance	Crystalline powder
Colour	Yellow to orange
Aroma	Characteristic
Flavour	Characteristic
Sieve Analysis % passed	100% Pass 80 Mesh 90% Pass 100 Mesh
Ash	Max 0.10%

Ash	Max 0.10%
Loss on Drying	Max 0.2%
Tapped Density	0.4g/ml - 0.6g/ml
Impurities	Coenzymes Q7,Q8,Q9,Q11 Max 1.0% Ubidecarenone (2Z)-isomer Max 0.5%
Residual Solvents	Methanol Max 3000ppm n-Hexane Max 290ppm

esidual Solvents n-Hexane Max 290ppm
Ethanol Max 5000ppm

Microbiological Limits

Total Viable Count	Max 1,000cfu/g
Yeasts & Moulds	Max 50cfu/g
E. Coli	Absent/10g
Salmonella	Absent/25g
Bile-tolerant gram negative	Max 10MPN/g
Staphylococcus Aureus	Absent/25g
Pseudomonas Aeruginosa	Absent/10g

Heavy Metal Limits

Total Heavy metals	Max 10ppm
Lead (Pb)	Max 0.5ppm
Cadmium (Cd)	Max 0.5ppm
Mercury (Hg)	Max 0.1ppm
Arsenic (As)	Max 1ppm

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Additional Technical Information

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Raw Material Full Botanical / Chemical Name	Coenzyme Q10	
The material is Food Grade	Yes	
Origin of Product – Synthetic, Plant, Mineral, Animal, Fish or Fermented	Fermented by Rhodobacter Sphaeroides	
Solvent Used	Hexane, methanol and ethanol	
Country of Origin	China	
Country of Manufacture	China	
Melting Point	48°C - 52°C	
Solubility in Alcohol	Slightly soluble in anhydrous ethanol	
Solubility in Water	Does not dissolve in water	
Average Molecular weight	863.36	
Molecular Formula	C59H90O4	
Molecular Structure (Image)	och, CH, CH,	
CAS Number	303-98-0	
EC/EINECS Number	206-147-9	
Shelf Life from Date of Manufacture	Min 3 Years	
Pharmacopeia Standard Used	USP	
Suitable for Vegetarians?	Yes	
Suitable for Vegans?	Yes	
Storage Conditions	This material is to be stored in a tightly sealed bag/container and to be kept in a cool place away from moisture and direct sunlight.	

Composition Origin, Function and Percentages

Ingredients	Function	% composition	Source
Coenzyme	-	98.0-101.0	fermentation

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 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.

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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 WITHGluten (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

Maize / Corn and any Derivatives No* Yes not present in figuroduct	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
Ethylene Oxide	Additives / E Numbers	No	No	N/A
Gelatine	Antioxidants	No	No	N/A
Riovourings (Artificial / Nature Identical / Natural / Smoked)	Ethylene Oxide	No	No	N/A
Maize / Corn and any Derivatives No* Yes *Used in ferments not present in fi product Legumes / Pulses No No No No No No No N/A Rice and Rice Derivatives No* No* No	Gelatine	No	No	N/A
Maize / Corn and any Derivatives Legumes / Pulses No	Flavourings (Artificial / Nature Identical / Natural / Smoked)	No	No	N/A
Rice and Rice Derivatives Added Salt No* No* Yes *Used in ferments not present in figure due to the following series of the Seeds and Seed Derivatives (Poppy Seeds, Cotton Seeds, Sunflower Seeds) No No No No No No No No No N	Maize / Corn and any Derivatives	No*	Yes	*Used in fermentation not present in final product
Added Salt No* Yes "Used in ferment not present in fi product No No No N/A BHA / BHT (E320 / E321) No No No N/A Caffeine Colours (Artificial / Nature Identical / Natural / Smoked) Dextrose No* No No No No No No No No N	Legumes / Pulses	No	No	N/A
Added Salt Added Sugar / artificial or natural sweeteners No* Yes not present in fit product *Used in ferments *Used in ferments *Used in ferments not present in fit product *Used in ferments *Used in ferments not present in fit product *Used in ferments not present in fit product *Used in ferments *Used i	Rice and Rice Derivatives	No	No	N/A
Added Sugar / artificial or natural sweeteners Aspartame BHA / BHT (E320 / E321) Caffeine Colours (Artificial / Nature Identical / Natural / Smoked) Dextrose Dextrose No* No No No No No No No No N	Added Salt	No*	Yes	*Used in fermentation not present in final product
BHA / BHT (E320 / E321) Caffeine No	Added Sugar / artificial or natural sweeteners	No*	Yes	*Used in fermentation not present in final product
Caffeine No No No N/A Colours (Artificial / Nature Identical / Natural / Smoked) No* Yes The special seads and Seed Derivatives (Poppy Seeds, Cotton Seeds, Sunflower Seeds) No No No No No No N/A Kiwi fruit Polyols (sugar alcohols) No No No No N/A Grapefruit Sorbic Acid (E200, E203) Any other Preservatives No No No No N/A Ethanol	Aspartame	No	No	N/A
Colours (Artificial / Nature Identical / Natural / Smoked) Dextrose No* Yes *Used in ferment not present in fi product other Seeds and Seed Derivatives (Poppy Seeds, Cotton Seeds, Sunflower Seeds) No No No No No No No No No N	BHA / BHT (E320 / E321)	No	No	N/A
Dextrose No* Yes *Used in ferment not present in fit product Other Seeds and Seed Derivatives (Poppy Seeds, Cotton Seeds, Sunflower Seeds) No	Caffeine	No	No	N/A
Dextrose No* Yes not present in fi product other Seeds and Seed Derivatives (Poppy Seeds, Cotton Seeds, Sunflower Seeds) No	Colours (Artificial / Nature Identical / Natural / Smoked)	No	No	N/A
Kiwi fruit No No N/A Polyols (sugar alcohols) No No N/A Grapefruit No No No N/A Sorbic Acid (E200, E203) No No No N/A Any other Preservatives No No N/A Ethanol Yes Yes Max 5000ppr	Dextrose	No*	Yes	*Used in fermentation not present in final product
Polyols (sugar alcohols) No No N/A Grapefruit No No No N/A Sorbic Acid (E200, E203) No No No N/A Any other Preservatives No No No N/A Ethanol Yes Yes Max 5000ppr	other Seeds and Seed Derivatives (Poppy Seeds, Cotton Seeds, Sunflower Seeds)	No	No	N/A
Grapefruit No No N/A Sorbic Acid (E200, E203) No No N/A Any other Preservatives No No N/A Ethanol Yes Yes Max 5000ppr	Kiwi fruit	No	No	N/A
Sorbic Acid (E200, E203) No No N/A Any other Preservatives No No N/A Ethanol Yes Yes Max 5000ppr	Polyols (sugar alcohols)	No	No	N/A
Any other Preservatives No No No N/A Ethanol Yes Yes Max 5000ppr	Grapefruit	No	No	N/A
Ethanol Yes Yes Max 5000ppr	Sorbic Acid (E200, E203)	No	No	N/A
	Any other Preservatives	No	No	N/A
Honey No No N/A	Ethanol	Yes	Yes	Max 5000ppm
	Honey	No	No	N/A
Lactose No No N/A	Lactose	No	No	N/A

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Yeast and Yeast Derivatives	No	Yes	*Used in fermentation not present in final product
All Animal Products (Beef, Pork, Poultry or other) and Derivatives (whichmay 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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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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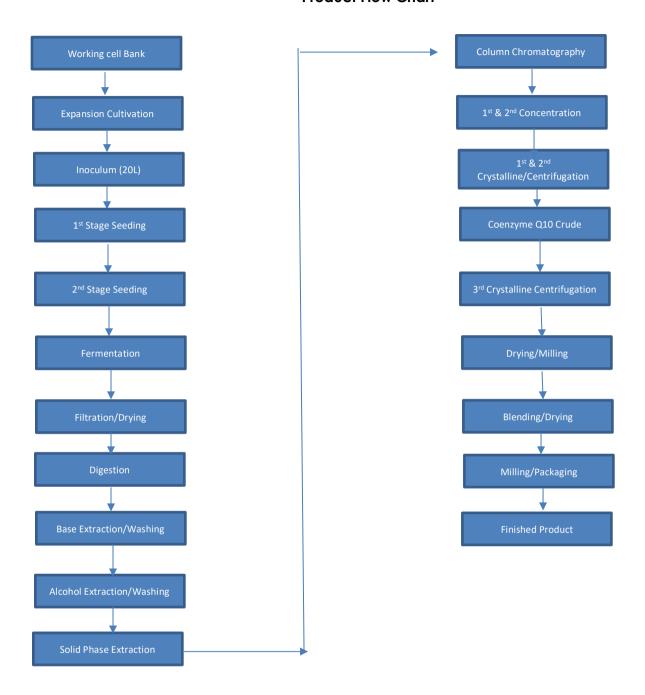








Product Flow Chart



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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 onscreen 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	Added production flowchart Amended residual solvents specifications	Yes
3	Reduced the total heavy metals from 20ppm to 10ppm, also added Lead, Cadmium and Mercury limits. The E.coli and Pharmacopeia was edited, also the document was reformatted.	Yes
4	The mercury limit was amended due to a clerical error.	Yes
5	General reformat Updated additive table Added PAH and packaging statement, Coliforms, Staphylococcus aureus Changed source from <i>Rhodobacter sphaeroides</i> to Glucose Change appearance from Free-Flowing Crystalline Powder to crystalline powder	Yes
6	Changed source to Rhodobacter sphaeroides, due to clerical error	Yes
7	As per supplier Spec: Changed Assay from 97% - 103% min to Min 98% - 101% Changed Sieve Analysis % passed from Min 90% Pass 80 Mesh to 100% Pass 80 Mesh & 90% Pass 100 Mesh Added Impurities Changed Residual Solvents from Hexane Max 1ppm, Ethyl Acetate Max 10ppm, Ethanol Max 100ppm to Methanol Max 3000ppm, n-Hexane Max 290ppm, Ethanol Max 5000ppm Changed Micro Changed Lead from Max 2ppm & Cadmium Max 1ppm to Lead Max 0.5ppm & Cadmium Max 0.5ppm Changed Additional Technical Information Changed Allergens & Additives Table Added Flow Chart	Yes

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Document Approval

Originator	Approver
Mel Lee Quality Administrator	Shannon McKenna SM McKenna Assistant Quality Manager

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