

## Product Technical Dossier

Product	Vitamin K2 (MK-7) 1.3% Powder
CCL Product Code	P22006

### Specification Details

	Specification
Identification (HPLC)	Positive
Assay (HPLC)	Min 13000ppm Vitamin K2 (MK-7)
Appearance	Crystalline powder
Colour	Pale yellow or white
Aroma	Characteristic
Flavour	Characteristic
Sieve Analysis % passed	Min 90% Pass through 80 mesh
Loss on Drying	Max 10%
Ash	Max 0.1%
Bulk Density	0.4-0.7g/ml
pH	5.5~8.0
Specific Gravity	1.35-1.55g/ml

### Microbiological Limits

Total Viable Count	Max 1,000 cfu/g
Yeasts & Moulds	Max 100 cfu/g
E. coli	Negative/10g
Salmonella	Negative/25g

### Heavy Metal Limits

Total Heavy metals	Max 10ppm
Lead (Pb)	Max 3ppm
Cadmium (Cd)	Max 1ppm
Mercury (Hg)	Max 0.1ppm
Arsenic (As)	Max 2ppm

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#### Additional Technical Information

Raw Material Full Botanical / Chemical Name	2-Methyl-3-all-trans-famesyl digeranyl-1, 4-naphthoquinone, MK-7
Plant Part Used	Soybean
The material is Food Grade	Yes
Country of Origin	China
Country of Manufacture	China
Solubility in Alcohol	Practically insoluble
Solubility in Water	Insoluble in water
Average Molecular weight	649.0
Molecular Formula	C <sub>46</sub> H <sub>64</sub> O <sub>2</sub>
CAS Number	2124-57-4
Shelf Life from Date of Manufacture	Min 2 Years
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	%	Source
Vitamin K2 MK-7	-	>1.3%	Fermentation (Soybean)
Beta Cyclodextrin	Carrier	>90%	-

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.



## Allergens and Food Intolerances

Allergens	Product Contains YES/NO	Handled at Manufacture site YES/NO	Please see risk rating A to E listed below
Peanuts and Peanut Derivatives (including possible cross contamination)	No	No	F
Nut and Nut Derivatives <i>Almond (Amygdalus communis L.), Hazelnut (Corylus avellana), Walnut (Juglans regia), Cashew (Anacardium occidentale), Pecan nut (Carya illinoensis (Wangenh.) K. Koch), Brazil nut (Bertholletia excelsa), Pistachio nut (Pistacia vera), Macadamia nut and Queensland nut (Macadamia ternifolia)</i>	No	No	F
Sesame Seeds and Sesame Seed Derivatives	No	No	F
Milk and Milk Derivatives (including lactose)	No	Yes	E
Egg and Egg Derivatives	No	YES	E
Cereals and Derivatives containing OR POTENTIALLY CONTAMINATED WITH Gluten <i>(wheat, wheatgrass, faro, freekeh, spelt, kamut, rye, oats, barley, barleygrass)</i>	No	No	F
Soya and Soya Derivatives	No	Yes	C
Lupin and Lupin Derivatives	No	No	F
Mustard and Mustard Derivatives	No	No	F
Celery or Celery Derivatives (including Celeriac)	No	No	F
Fish and Fish Derivatives	No	No	F
Molluscs and their Derivatives	No	No	F
Crustaceans and their Derivatives	No	No	F
Sulphur Dioxide and Sulphites (E220, E228) at levels > 10mg/kg or 10mg/litre	No	No	F

- A - Risk of contact at source during harvesting and may contain traces  
 B - Raw material handled on same line as other allergenic materials and may contain traces  
 C - Raw material handled on same line as other allergenic materials however formal control programme in place to minimise cross contact risk  
 D - Exempt from labelling according to EU regulations  
 E - Not handled on the same line  
 F - Not handled at manufacture site and therefore no risk of cross contamination



Additives / Contaminants / Dietary Requirements / Intolerances	Product Contains YES/NO	Handled at Manufacture site YES/NO	Please see risk rating A to E listed below
Additives / E Numbers	No	No	F
Antioxidants	No	No	F
Ethylene Oxide	No	No	F
Gelatine	No	No	F
Flavourings (Artificial / Nature Identical / Natural / Smoked)	No	No	F
Maize / Corn and any Derivatives	No	No	F
Legumes / Pulses	No	No	F
Rice and Rice Derivatives	No	No	F
Added Salt	No	No	F
Added Sugar / artificial or natural sweeteners	No	No	F
Aspartame	No	No	F
BHA / BHT (E320 / E321)	No	No	F
Caffeine	No	No	F
Colours (Artificial / Nature Identical / Natural / Smoked)	No	No	F
Dextrose	No	No	F
Other Seeds and Seed Derivatives (Poppy Seeds, Cotton Seeds, Sunflower Seeds)	No	No	F
Fruits (Kiwi fruit, orange, banana, apple, peach)	No	No	F
Polyols (sugar alcohols)	No	No	F
Grapefruit	No	No	F
Sorbic Acid (E200, E203)	No	No	F
Any other Preservatives	No	No	F
Ethanol	No	No	F
Honey	No	No	F
Lactose	No	No	F
Yeast and Yeast Derivatives	No	No	F
All Animal Products (Beef, Pork, Poultry or other) and Derivatives (which may include growth/yield hormones, antibiotics etc.)	No	No	F
Bovine Products or Derivatives (which may include growth/yield hormones, antibiotics etc.)	No	No	F
Matsutake mushroom and Derivatives	No	No	F
Yam and Derivatives	No	No	F
Buckwheat and Derivatives	No	No	F
Palm Oil and Derivatives	No	No	F
Coconut and Derivatives	No	No	F

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## Compliance Statements

<p><b>Confirmation of BSE / TSE Status</b> 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.</p>	Yes
<p><b>Confirmation of GM Status</b> This product is not manufactured from GM raw materials and is therefore not subject to labelling under current regulations.</p>	Yes
<p><b>Confirmation of Non-Irradiation Status</b> This product, whole or in part, has not been subjected to Ionising Radiation as per European Directives.</p>	Yes
<p><b>Confirmation of IOC Product Status</b> This product, whole or in part, has not come into contact with any product which is banned by the IOC (International Olympics Committee) and/or WADA.</p>	Yes
<p><b>Confirmation of Animal Testing Status</b> This product has not been tested on animals in any part of its manufacture in accordance with current regulations.</p>	Yes
<p><b>Confirmation of Pesticides Status</b> This product complies with the EU max residue limits (MRLs) on pesticides.</p>	Yes
<p><b>Confirmation of Nanomaterial Status</b> This product does not contain nanomaterials as per relevant EU regulations.</p>	Yes
<p><b>Confirmation of Food Grade Packaging</b> The packaging used in this product conforms to EU regulations and subsequent amendments on food grade packaging</p>	Yes
<p><b>Confirmation of Pyrrolizidine Alkaloids (PA) status</b> This product complies with the PA limit set by the EU regulations</p>	Yes
<p><b>Confirmation of Contaminants status</b> This product complies with Commission Regulation (EC) No 1881/2006 wherever applicable</p>	Yes

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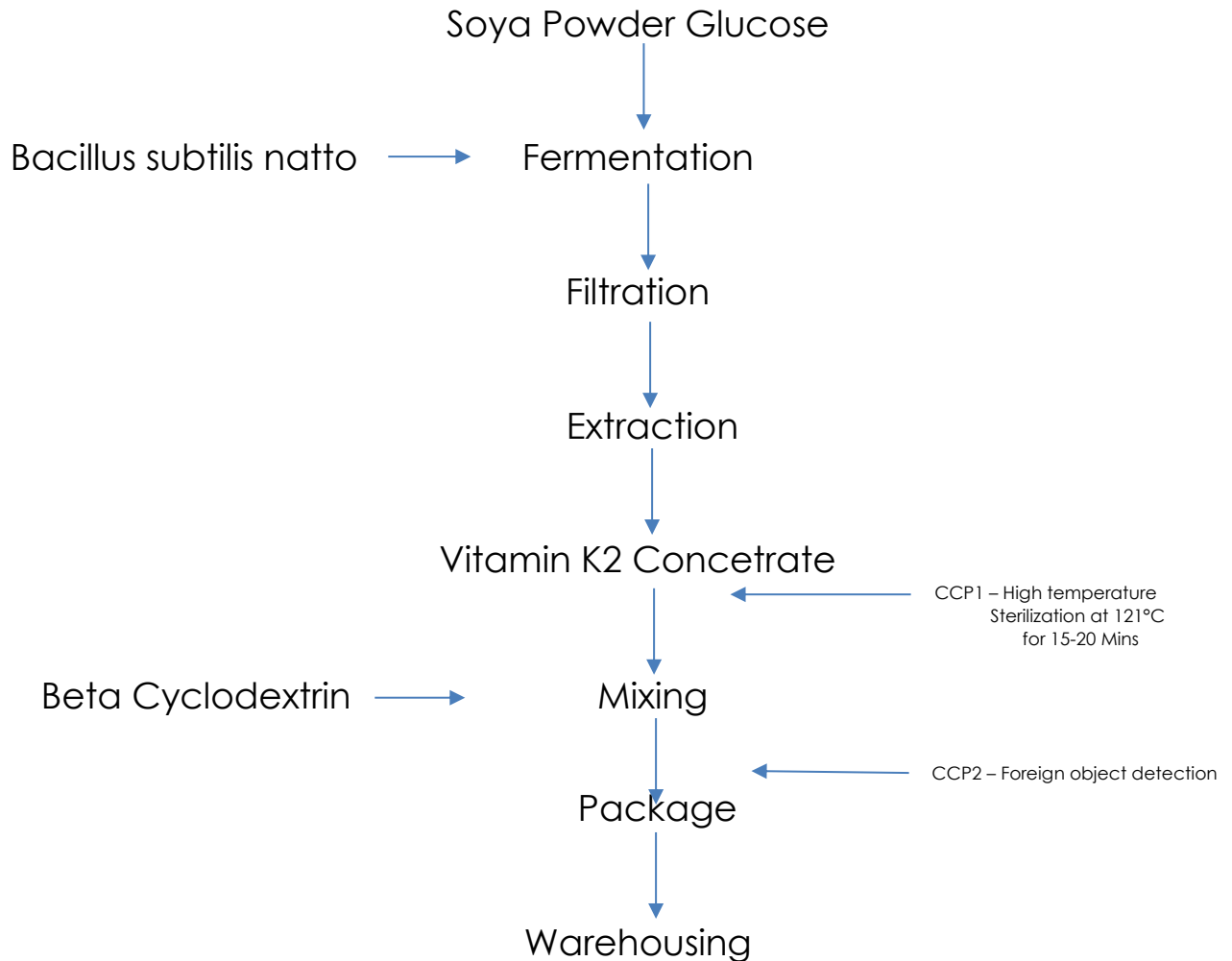
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## Product Flow Chart



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## Material Safety Data Sheet

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


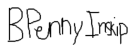
The Information provided in this document is subject to change and the batch specific certificate of analysis should always be referenced.

To be used as per local legislation.

### Change History

Version	Change	Customer Notification required Yes / No
1	First Issue	N/A
2	The following changes have been made according to supplier's specification: - Format updated and MSDS removed (available upon request) - CAS Number amended from 27670-94-6 to 2124-57-4 - Solvents used from alcohol to ethanol - Allergens amended to add ethanol and soy as present on manufacture site.	Yes
3	Updated product flow chart & compliance statements Changed Allergens/Additives table to new letter format. Changed Assay specification from "Min 1.3% Menaquinone-7 by HPLC" to "Min 13000ppm Vitamin K2 (MK-7)", Sieve analysis from "90% pass 80-100 Mesh" to "Min 90% pass through 80 Mesh" & specific gravity from "1.44 g/cm <sup>3</sup> " to "1.35-1.55g/ml" Removed Ethanol as solvent used	Yes

### Document Approval

Originator	Approver
 Mel Lee Quality Administrator	 Ben Penny-Inskip Quality Specialist

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