

**PRODUCT TECHNICAL DOSSIER**

**BILBERRY EXTRACT 4:1**

**Product Code:**

P0282

**Tariff Code:**

1302197000

**Raw Material Full Name:**

Bilberry extract 4:1

**Raw Material Full Botanical/Chemical/Latin/Trade Name/Synonyms:**

*Vaccinium myrtillus*

**This material is Food Grade:**

Yes

**Vegan / Vegetarian Status:**

Suitable for Both

**Ratio of Material:**

4:1

**Solubility in Water:**

Soluble in water

**Solubility in Alcohol:**

Soluble in alcohol

**Particle Size:**

80Mesh

**Percentage passed through:**

Min 95%

**Bulk Density:**

0.25-0.45g/ml

**Tapped Density:**

0.30-0.55g/ml



**Specific Gravity:**

0.25-0.55g/ml

**Loss on Drying:**

NMT 5%

**Residue on Ignition:**

NMT 5%

**Country of Origin:**

Europe

**Country of Origin of the Manufacture:**

China

**Base Source/Start Material:**

Fruit of the *Vaccinium myrtillus*

**Solvents used:**

Water and Ethanol

**What is the extraction/processing used? What solvents are used and at what ratio's?**

Extract by 30% Water and 70% Ethanol

**Compound Ingredients Origin, Function and Percentages:**

Bilberry extract 90% Active ingredient

Maltodextrin 10% Carrier from corn

**Shelf Life from Date of Manufacture:**

Min 2 Years

**Storage Conditions:**

Store in cool and dry place, keep away from strong light and heat

**Appearance (Fine/Crystals/Crystalline/Hygroscopic):**

Fine Powder

**Colour:**

Purple/Red

**Flavour/Taste:**

Characteristic



**Odour:**

Characteristic

**Do any of the parameters change in different seasons?**

No

**Microbiological Test**

**Total Viable Count:**

1,000cfu/g

**Yeast & Moulds:**

100cfu/g

**Coliforms:**

Negative/10g

**E. coli:**

Negative/10g

**Salmonella:**

Negative/25g

**Staphylococcus aureus:**

Negative/10g

**Heavy Metals**

**Lead (Pb):**

Max 3ppm

**Cadmium (Cd):**

Max 1ppm

**Mercury (Hg):**

Max 0.1ppm

**Arsenic (As):**

Max 1ppm

**Pharmacopeia Standard Used:**

CP



There are no nuts in this recipe; however, we cannot guarantee that the raw materials entering the site are nut free.

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

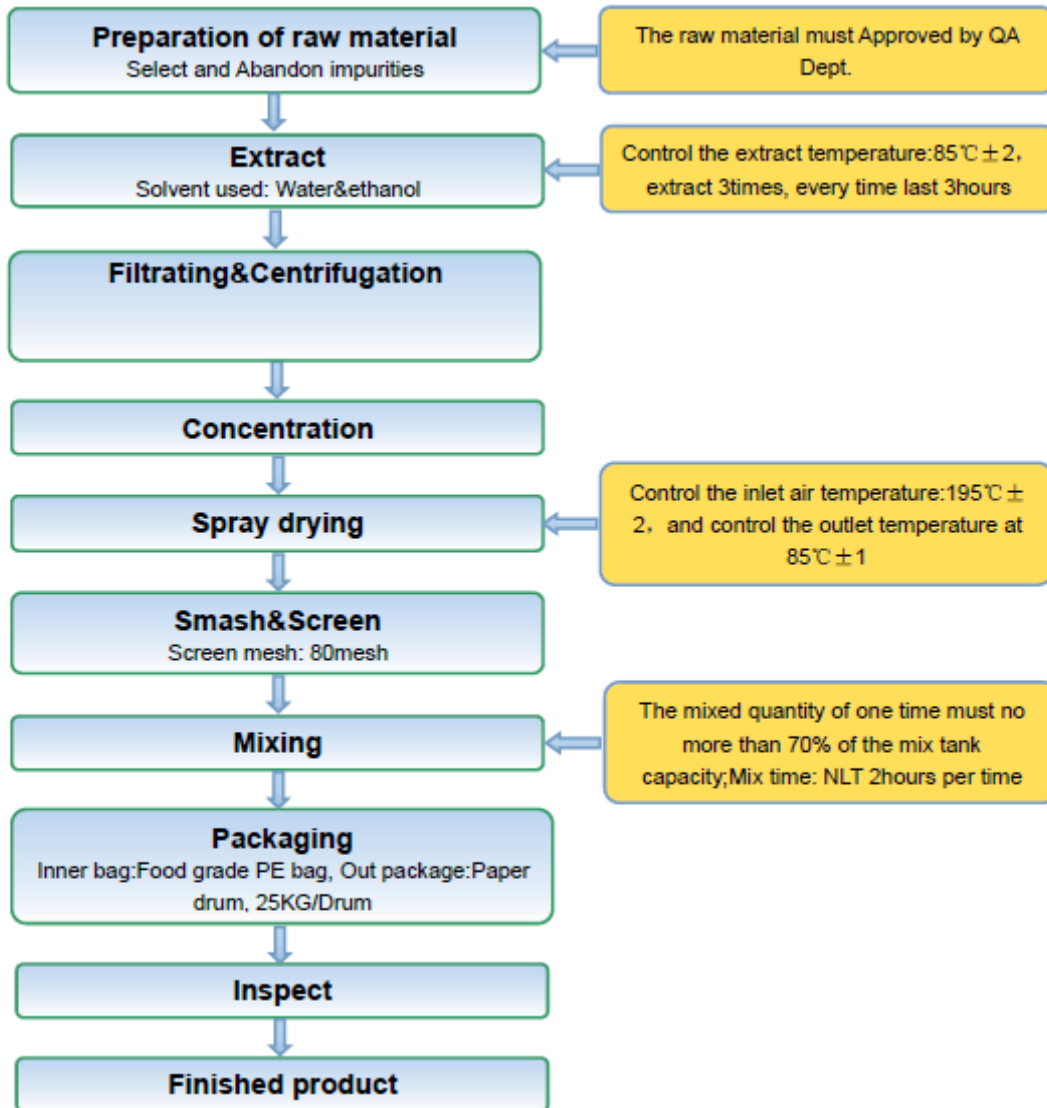
ALLERGENS	Product Contains YES/NO	Listed Item on Site at Manufacturer YES/NO	If YES, Please Comment
Peanuts and Peanut Derivatives (including possible cross contamination)	NO	NO	
Other Nut and Nut Derivatives <i>Almond (Amygdalus communis L.), Hazelnut (Corylus avellana), Walnut (Juglans regia), Cashew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



ADDITIVES / CONTAMINANTS / DIETARY REQUIREMENTS	Product Contains YES/NO	Listed Item on Site at Manufacturer YES/NO	If YES, Please Comment
Additives	NO	NO	
Antioxidants	NO	NO	
Ethylene Oxide	NO	NO	
Gelatine	NO	NO	
Flavourings (Artificial / Nature Identical / Natural / Smoked)	NO	NO	
Maize / Corn and any Derivatives	YES	YES	Maltodextrin used as compound ingredient
Legumes / Pulses	NO	NO	
Rice and Rice Derivatives	NO	NO	
Added Salt	NO	NO	
Added Sugar / artificial or natural sweeteners	NO	NO	
Aspartame	NO	NO	
BHA / BHT (E320 / E321)	NO	NO	
Caffeine	NO	NO	
Colours (Artificial / Nature Identical / Natural / Smoked)	NO	NO	
Dextrose	NO	NO	
Dioxins	NO	NO	
MSG (Added and Naturally Occurring E621) or Glutamates (E620 to E625)	NO	NO	
Nucleotides (E627, E630, E631, E635)	NO	NO	
Polyols (sugar alcohols)	NO	NO	
Benzoates (E210 / E219)	NO	NO	
Sorbic Acid (E200, E203)	NO	NO	
Any other Preservatives	NO	NO	
Ethanol	YES	YES	Used for extraction only
Honey	NO	NO	
Lactose	NO	NO	
Yeast and Yeast Derivatives	NO	NO	
All Animal Products (Beef, Pork, Poultry or other) and Derivatives (which may include growth/yield hormones, antibiotics etc.)	NO	NO	
Bovine Products or Derivatives (which may include growth/yield hormones, antibiotics etc.)	NO	NO	



## PRODUCTION FLOW CHART



### **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.

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.

### **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 regulations 1829/2003/EC and 1830/2003/EC.

### **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 1999/3/EC.

### **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.

### **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.

### **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 regulation 86/609/EEC.

### **CONFIRMATION OF PESTICIDES STATUS**

This is to certify that the above-mentioned product complies with the regulation (EC) No.396/2005 of 23rd February 2005 and commission Regulation (EU) No. 559/2011 of 7th June 2011 amending annexes II and III of the above Regulation.

### **CONFIRMATION OF NANOPARTICLE STATUS**

This is to certify that unless otherwise stated, the above-mentioned product is free of nanoparticles. Commission Recommendation 2011/696/EU, 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".



## MATERIAL SAFETY DATA SHEET

### Section 1 Identification of the Substance/Mixture and of the Company/Undertaking

Product name: Bilberry extract 4:1  
Company: Cambridge Commodities Limited  
Lancaster Way, Ely, Cambridgeshire, CB6 3NX  
Tel: 01353 667258. Email: qa@c-c-l.com

### Section 2 Hazards Identification

**Potential Acute Health Effects:** Slightly hazardous in case of skin contact(Irritant), of eye contact(Irritant), of ingestion, of inhalation

**Potential Chronic Health Effects:** Repeated or prolonged exposure is not known to aggravate medical condition.

### Section 3 Composition/Information on Ingredients

Bilberry extract 90%  
Maltodextrin 10%

### Section 4 Emergency and First Aid Measures

**Eye contact:** Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

**Skin contact:** Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.

**Serious skin contact:** Not available

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Serious inhalation:** Not available

**Ingestion:** Do not induce vomiting unless directed to do so by medical personal. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar tie, belt or waistband.

**Serious ingestion:** Not available.





## Section 5 Fire-fighting measures

**Flammability of the product:** May be combustible at high temperature.

**Fire Hazards in Presence of Various Substances:** Slightly flammable to flammable in presence of heat

**Fire Fighting Media and Instructions:** SMALL FIRE: Use Dry chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

**Special Remarks on Fire Hazards:** As with most organic solids, fire is possible at elevated temperatures

**Special Remarks on explosion Hazards:** Fine dust dispersed in air in sufficient concentrations, and in presence of an ignition source is a potential dust explosion hazard.

## Section 6 Accidental Release Measures

**Small Spill:** Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

**Large Spill:** Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

## Section 7 Handling and Storage

**Precautions:** Keep away from heat. Keep away from sources of ignition. Ground all equipment container material. Do not breath dust. Keep away from incompatibles such as oxidizing agents.

**Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area.

## Section 8 Exposure Controls/Personal Protection

**Engineering Control:** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Personal Protection:** Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/Certified respirator or equivalent. A dust respirator is only necessary if concentration of airborne particulates, has exceeded the exposure limits. Gloves.

**Personal protection in case of a large spill:** Splash goggles. Full Suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist before handling this product.

**Exposure Limits:** Particulates not otherwise regulated (Nuisance dust): 15(mg/m<sup>3</sup>) from OSHA(PEL)[United States] inhalation total. TWA: 5(mg/m<sup>3</sup>) from OSHA(PEL)[United States] inhalation respirable. Consult local authorities for acceptable exposure limits.



## Section 9 Physical and Chemical Properties

**Physical state and appearance:** Solid. (Powdered solid)

**Colour:** Purple/red

**Solubility:** Soluble in water

## Section 10 Stability and Reactivity

**Stability:** The product is stable.

**Condition of instability:** Excess heat, incompatible materials

**Incompatibility with various substances:** Reactive with oxidizing agents

**Corrosivity:** Non-corrosive in presence of glass

## Section 11 Toxicological Information

**Routes of entry:** inhalation. Ingestion.

**Other Toxic effects on humans:** Slightly hazardous in case of skin contact(irritant), of inhalation. Non-hazardous in case of ingestion.

**Special remarks on other toxic effects on humans:**

**Acute potential health effects:**

**Skin:** May cause skin irritation by mechanical action.

**Eye:** May cause eye irritation by mechanical action.

**Inhalation:** May cause respiratory tract irritation by mechanical action.

**Ingestion:** Non-hazardous

## Section 12 Ecological Information

**Products of biodegradation:** Possible hazardous short term degradation products are not likely. However, long term degradation products may rise.

## Section 13 Disposal Considerations

**Waste Disposal:** Waste must be disposed of in accordance with federal, state and local environmental control regulation.

## Section 14 Transport Information

**DOT Classification:** Not a DOT controlled material

**Identification:** Not Applicable

**Special Provisions for transport:** Not Applicable



## Section 15 Regulatory Information

**Federal and state regulations:** No products were found  
**WHMIS(Canada):** Not controlled under WHMIS(Canada)  
**DSCL(EEC):** This product is not classified according to the EU regulations. Not applicable  
**HMIS(U.S.A.): Health hazard: 1. Fire hazard: 1. Reactivity: 0. Personal protection: E**  
**National Fire Protection Association (U.S.A.): Health: 1. Flammability: 1. Reactivity: 0**  
**Protective equipment:** Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Safety glasses.

## Section 16 Other Information

This advice is given by Cambridge Commodities Ltd who accepts no legal liability for it. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.

Individuals working with chemicals should consider all chemicals to be potentially hazardous even if their individual hazards may be uncharacterised or unknown.

This 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.

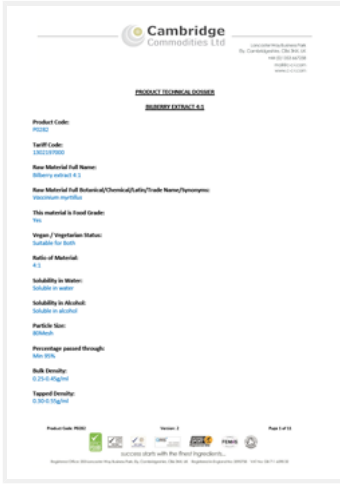
## Change History

Version	Change	Customer Notification required Yes / No
1	First Issue	N/A
2	Changed Country of origin from China to Europe. Removed '2010' from Pharmacopeia used. Confirmed amount of material tested during microbiological assessments.	Yes

## Document Approval

Originator Job Title	QC Team Leader	Approver Job Title	Quality Specialist
<i>Ash Bean</i> Ash Bean (Jan 31, 2018)		<i>Matthew Vincent</i>	










# P0282-Bilberry Extract 4.1- Technical Dossier V2

Adobe Sign Document History

01/31/2018

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