

Product Technical Dossier

Product	Piper Nigrum Extract min 95% Piperine
CCL Product Code	P16131

Specification Details

Means of Identification (TLC / HPLC)	Positive
Assay (HPLC)	Min 95%
Appearance	Free flowing Powder
Colour	Cream To Light Green (**)
Aroma	Characteristic
Flavour	Characteristic

(**) Please note the colour of this natural material could be subject to slight change due to many factors such as seasonal variations.

Sieve Analysis % Passed	Min 95% Pass 40 mesh
Loss On Drying	Max 5%
Ash	Max 6%
Bulk Density	Min 0.2g/ml
Tapped Density	Min 0.4g/ml
pH of 1% Solution	4.0 – 7.0

Microbiological Limits

Total Viable Count	Max 10,000 cfu/g
Yeasts & Moulds	Max 500 cfu/g
E. Coli	Negative/g
Salmonella	Negative/25g
P.Aeruginosa	Negative/g
S.Aureus	Negative/g

Heavy Metal Limits

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

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Additional Technical Information

Raw Material Full Botanical / Chemical Name	<i>Piper Nigrum</i>
Part Used	Fruits
The material is Food Grade	Yes
Ratio of Material	25:1
Solvent used	Ethyl Acetate 100% / Hexane 100%
Cultivated / Wild	Cultivated
Harvest Method	Manual
Harvest Period	November – March
Harvest Stage (age of the plant)	Mature; 2 Years
Country of Origin	India
Country of Manufacture	India
Solubility in Alcohol	Soluble
Solubility in Water	Partially Soluble
Shelf Life from Date of Manufacture	Min 2 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	% composition	Source
Black Pepper Extract	100%	Fruit of the <i>Piper Nigrum</i>

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 and Food Intolerances

Allergens	Product Contains YES/NO	Handled at Manufacture site YES/NO	Please see risk rating A to F 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	No	F
Egg and Egg Derivatives	No	No	F
Cereals and Derivatives containing OR POTENTIALLY CONTAMINATED WITH Gluten <i>(wheat, wheatgrass, faro, freekeh, spelt, kamut, rye, oats, barley, barley grass)</i>	No	No	F
Soya and Soya Derivatives	No	No	F
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

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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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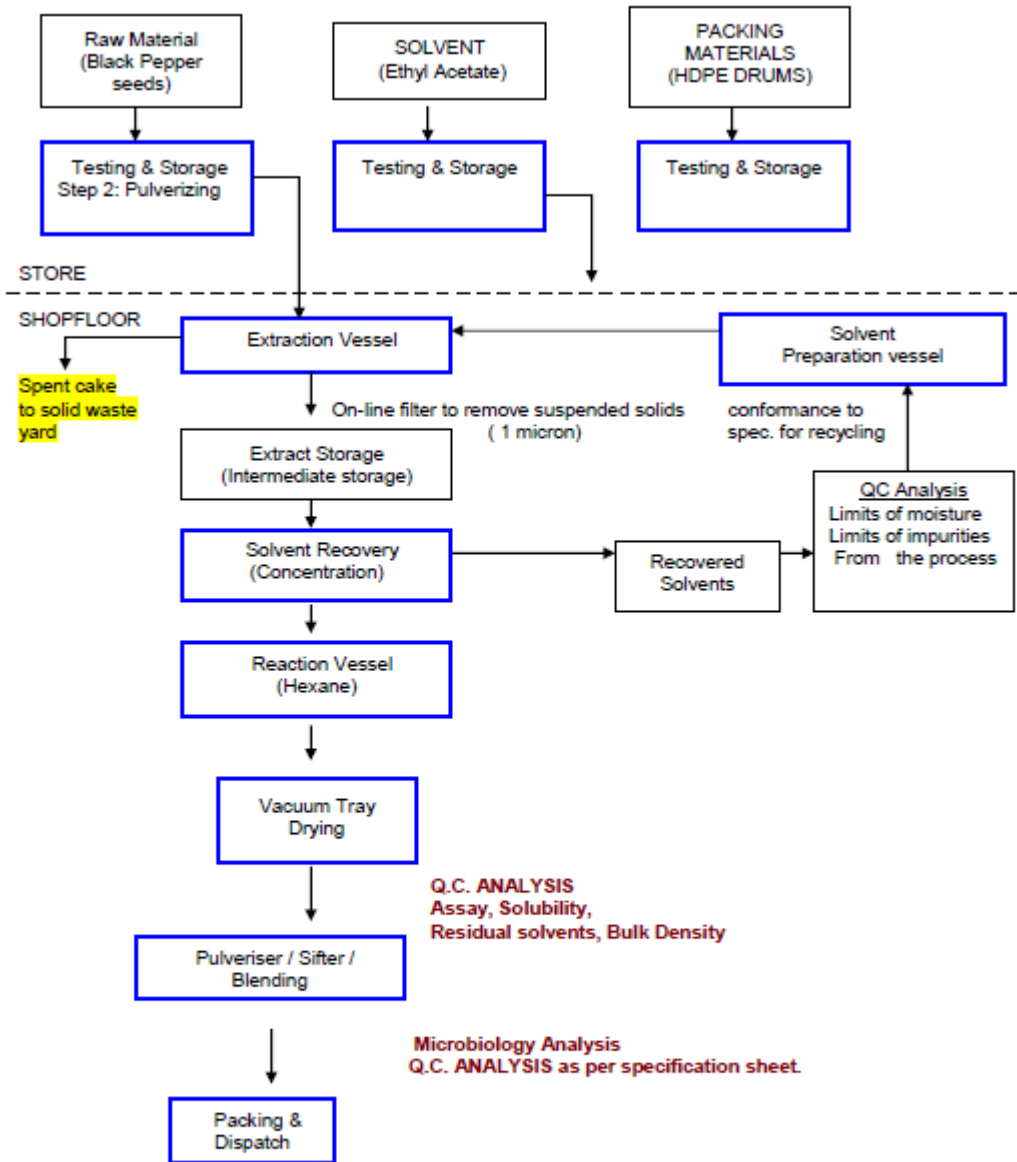
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Statements

<p>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.</p>	YES
<p>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.</p>	YES
<p>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.</p>	YES
<p>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.</p>	YES
<p>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.</p>	YES
<p>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.</p>	YES
<p>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.</p>	YES
<p>Confirmation of Pesticides Status This is to certify that the above-mentioned product complies with the EU max residue limits (MRLs) on pesticides.</p>	YES
<p>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".</p>	YES
<p>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</p>	YES
<p>Confirmation of PAH status This is to certify that the above-mentioned product complies with the max PAH limits set by the EU regulations</p>	YES



Product Flow Chart



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	Shelf life amended from 3 years to Minimum 2 years (Batch Specific) updated to new format	Yes
3	Total Viable Count has been updated from Max 1,000cfu/g to Max 5,000cfu/g due to the supplier updating their specification	Yes
4	changed colour from white-off white to light yellowish-greenish to correct historical error, Changed Total Plate Count (TVC) result from 5,000cfu/g to 10,000cfu/g, removed Pseudomonas aeruginosa and Staphylococcus aureus, removed HPLC from identification, updated ratio range from 25-30:1 to 25-35:1, Changed shelf life from minimum 2 years to minimum 1 year, reformatted allergen tables, updated flowchart, removed identification to match suppliers documents	Yes
5	General reformat Additional supplementary technical information Updated flowchart, allergens and additives tables Changes: <ul style="list-style-type: none"> • Colour from Light Yellowish-Greenish to Cream To Light Green • Sieve analysis from Min 95% to 40-60mesh to Min 95% Pass 40 mesh • Shelf life from min 1 year to min 2 years • Ratio of material from 25-35:1 to 25:1 • Salmonella from absent to negative/25g 	Yes
6	Updated Allergens/Additives table to new letter format Changed product name from "BLACK PEPPER EXTRACT -95%" to "Piper Nigrum Extract min 95% Piperine"	Yes

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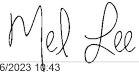

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Document Approval

Originator	Approver
 Mel Lee Quality Administrator <small>14/06/2023 14:43</small>	 Jordan Clark Quality Specialist <small>14/06/2023 14:42</small>

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