

Finished Product Specification



| | |
|------------------|--------------------------|
| Product | Coll-egan® (Unflavoured) |
| CCL Product Code | P13772 |
| Product Type | Powder Blend |

Product Details

| | |
|------------|-------------------------------|
| Appearance | Off white/cream – pink powder |
| Flavour | Unflavoured |
| Sweetener | Unsweetened |

Microbiological Limits

| | |
|------------------------|---------------------|
| Total Viable Count | Max 100,000cfu/g |
| Yeasts & Moulds | Max 1,000cfu/g |
| E. Coli | <10cfu/g |
| Salmonella | Not detected in 25g |
| Listeria monocytogenes | <10cfu/g |

Heavy Metal Limits

| | |
|--------------|------------|
| Lead (Pb) | Max 3ppm |
| Cadmium (Cd) | Max 1ppm |
| Mercury (Hg) | Max 0.1ppm |
| Arsenic (As) | Max 1ppm |

Additional Information

| | |
|----------------|----------------|
| Irradiation | Non Irradiated |
| GMO | Non GMO |
| TSE/BSE Status | TSE/BSE Free |
| Organic | Non-Organic |
| Bulk Density | 0.819g/ml |
| Tapped Density | 0.885g/ml |

Please note: Bulk density and tapped density are only typical values. Please refer to the technical dossiers for the density and expected range of each material.



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Shelf Life and Storage

| | |
|--------------------|---|
| Storage Conditions | Store below 25°C and protect from heat and light. Clumping and discolouration may occur if product is not properly sealed. |
| Shelf Life | 2 Years from date of manufacture when stored correctly |

| | |
|--------------------|---|
| Suggested Serving | 0.53g – 44.44g |
| Suggested Warnings | Do not exceed the stated recommended daily dose Food supplements should not be used as a substitute for a varied diet Keep out of the reach of children Doses of more than 1000mg of vitamin C may cause mild stomach upset in sensitive individuals |

Typical Nutrition Information (Calculated)

| Nutrient | Amount Per 100g | Amount Per 3.56g Serving |
|--|----------------------|--------------------------|
| Fat | 0g | 0g |
| of which saturates | 0g | 0g |
| of which mono-unsaturates | 0g | 0g |
| of which polyunsaturates | 0g | 0g |
| Carbohydrate | <1g | 0g |
| of which sugars | <1g | 0g |
| of which polyols | 0g | 0g |
| of which starch | <1g | 0g |
| Fibre | <1g | 0g |
| Protein* | 83g | 3g |
| -Protein coming from free form amino acids | 83g | 3g |
| Salt** | 0g | 0g |
| Vitamin C (22% Overage Added) | 2250mg (2813% RI***) | 80mg (100% RI***) |

* 'protein' means the protein content calculated using the formula: protein = total Kjeldahl nitrogen × 6.25

**'salt' means the salt equivalent content calculated using the formula: salt = sodium × 2.5

***RI = Reference Intake

Protein conversion calculations and related values other than purity and microbial data are for information purposes only and that for labelling, health claims and related technical guidance you should always speak to the competent authority for the market or member state which the final products are placed.

See next page for break-down of amino acids



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Active Ingredients

| Product Code & Name | g/100g | Primary Ingredient Source | Purity/Composition |
|--|--------|---|---|
| P0728 L-Glycine (0.5% Anti-caking Agent: Silicon Dioxide) | 26.5g | Synthetic: Chloroacetic Acid | 99.5% Glycine 0.5% Anti-caking Agent: Silicon Dioxide |
| P0804 L-Hydroxyproline | 16.0g | Fermented: Glucose (Corn) | 98.5% to 101.0% (Assay) L-Hydroxy Proline |
| P0723 L-Glutamic Acid | 15.75g | Fermented: Glucose (Corn) | Minimum 98.5% L-Glutamic Acid |
| P0108 L-Alanine | 11.75g | Fermented: Propanoic Acid | 98.5% - 101.5% Alanine |
| P01225 L-Arginine Hydrochloride | 11.0g | Fermented: Glucose (Corn) | 98.5% to 101.5% L-Arginine Hydrochloride Providing 82.7% Arginine |
| P0102 Acerola Blend (Dicalcium Phosphate, Ascorbic Acid, Tricalcium Phosphate, Acerola Juice Powder, Carob Powder, Anti-caking Agent: Silicon Dioxide) | 11.0g | Plant: Fruit of the <i>Malpighia glabra</i> | 62% Dicalcium Phosphate 27% Ascorbic Acid (Vitamin C) 5% Tricalcium phosphate 3% Acerola juice powder 2% Carob powder 1% Anti-caking Agent: Silicon Dioxide Providing 25% Vitamin C |
| P0183 Bamboo Extract | 7.0g | Plant: Stem of the <i>Bambusa vulgaris</i> | 90% Bamboo Stem 10% Maltodextrin (Corn) Providing 75% Silica |
| P1620 L-Proline | 1.0g | Fermented: Glucose (Corn) | 98.5% - 101.5% L-Proline |



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| Allergens | Contains (as ingredient) YES/NO | Listed Item on same manufacturing line as finished product YES/NO | Raw material cross-contact risk and source? |
|---|---------------------------------|---|---|
| Peanuts and Peanut Derivatives (including possible cross contamination) | NO | NO | NO |
| 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 | NO |
| Sesame Seeds and Sesame Seed Derivatives | NO | NO | NO |
| Milk and Milk Derivatives (including lactose) | NO | YES (C) | NO |
| Egg and Egg Derivatives | NO | YES (C) | NO |
| Cereals and Derivatives containing OR POTENTIALLY CONTAMINATED WITH Gluten (<i>wheat, wheatgrass, faro, freekeh, spelt, kamut, rye, oats, barley, barley grass</i>) | NO | YES (C) | NO |
| Soya and Soya Derivatives | NO | YES (C) | NO |
| Lupin and Lupin Derivatives | NO | YES (C) | NO |
| Mustard and Mustard Derivatives | NO | YES (C) | NO |
| Celery or Celery Derivatives (including Celeriac) | NO | YES (C) | NO |
| Fish and Fish Derivatives | NO | YES (C) | NO |
| Molluscs and their Derivatives | NO | YES (C) | NO |
| Crustaceans and their Derivatives | NO | YES (C) | NO |
| Sulfur Dioxide and Sulphites (E220, E228) at levels > 10mg/kg or 10mg/litre | NO | YES (C) | NO |

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

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.

| Dietary Requirements | YES | NO | Source/Details |
|----------------------|-----|----|----------------|
| Vegetarian Suitable | YES | | |
| Vegan Suitable | YES | | |
| Kosher | | NO | |
| Halal | | NO | |

Use as per local legislation

Our suggestions do not relieve our customers of the responsibility of checking this specification and the suitability of our products for the envisaged purpose.


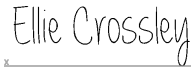


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Change History

| Version | Change | Date |
|---------|--|------------|
| 1 | First Issue | 23/09/2019 |
| 2 | Added visual inspection Updated from preliminary status | 14/10/2019 |
| 3 | Added Bamboo Extract (5%) Reduced Acerola Blend, Alanine, Arginine, Hydroxyproline and Proline Reduced vitamin C label claim Increased dose to reflect reduced vitamin C content | 25/02/2020 |
| 4 | Added logo, changed name | 28/02/2020 |
| 5 | Added ® | 02/03/2020 |
| 6 | Removed P1620 L-Proline reduced from 15.25g/100g to 1g/100g P0728 L-Glycine increased from 25g/100g to 26.5g/100g P0804 L-Hydroxyproline increased from 14g/100g to 16g/100g P0723 L-Glutamic Acid increased from 13.75g/100g to 15.75g/100g P0108 L-Alanine increased from 9g/100g to 11.75g/100g P01225 L-Arginine HCl increased from 9g/100g to 11g/100g P0102 Acerola Blend increased from to 9g/100g to 11g/100g P0183 Bamboo Extract increased from 5g/100g to 7g/100g 22% Overage added to label claim Amended appearance to include possibility of appearing pink Amended storage instructions to include warning of possible clumping and discolouration if product is not sealed correctly | 26/06/2020 |
| 7 | Added extra nutrition information | 15/10/2020 |
| 8 | Updated to new allergen table format Added allergens on the line based upon chosen manufacturing site | 24/02/2021 |
| 9 | Added typical bulk density and typical tapped density to spec Updated nutrition information (carbohydrate, fibre, sugar and starch updated from '0g' to '<1g') | 10/03/2022 |

Document Approval

| Originator Job Title | Senior Product Compliance and Regulatory Affairs Nutritionist | Approver Job Title | Product Compliance Nutritionist |
|----------------------|--|--------------------|--|
| |  X 10/03/2022 18:25 | |  X 11/03/2022 09:18 |



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Customer Approval

Cambridge Commodities Ltd (CCL) advise our customers on technological matters to the best of our knowledge. CCL hold no responsibility for the suitability of product for the proposed purpose. It is the responsibility of the brand owner to ensure that all marketing communications are compliant within local legislation and that the appropriate registrations have been obtained. The brand owner is responsible for choosing the legal name of the product and ensuring that the composition meets the legal requirements for the chosen legal category assigned to the product. Energy, protein conversion calculations and related values other than purity and microbial data are for information purposes only. For technical and labelling guidance please speak to the competent authority for the market or member state in which the final products are placed.

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.

Shelf life has been based on microbiological safety. CCL cannot be held responsible for interactions between ingredient combinations as all formulations are unique. We recommend our customers carry out stability trials to assess organoleptic properties of the product under the envisaged packaging/processing/storage conditions. The stability of the ingredients and nutrients within a formulation is complex and are unique to each individual formulation; CCL recommend our customers perform trials to assess required overages based on the conditions the product is expected to be stored in.

CCL recommend that trials are carried out to ensure suitability of the chosen packaging/processing/storage conditions. Some ingredients can be hygroscopic in nature so the properties of ingredients should be carefully considered when choosing packaging material. Cambridge Commodities recommend that the product is suitably evaluated prior to commercial usage. Our information and recommendations are without obligation.

By signing this agreement, you are confirming that you have read this finished product specification and understand the composition of the product. It is understood that by signing this agreement you understand that the formulation meets expectations for your envisaged purpose.

| | |
|-------------------|--|
| Company Name | |
| Name of Signer | |
| Job Title | |
| Date | |
| Please sign below | |



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