

**PRODUCT TECHNICAL DOSSIER****L-TYROSINE****Product Code:**

P2010

**Tariff Code:**

2922500090

**Raw Material Full Name:**

L-Tyrosine

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

2-Amino-3-(4-hydroxyphenyl)-propanoic acid; 3-(4-Hydroxyphenyl)-L-alanine

**This material is Food Grade:**

Yes

**FEED status:**

Assured

**Vegan / Vegetarian Status:**

Not suitable

**Limit/Range/Specification:**

98.5~101.5%

**Means of Identification:**

Concordant with the reference spectrum (IR)

**CAS Number:**

60-18-4

**EC/EINECS Number:**

200-460-4

**Molecular Formula for the raw material:** $C_9H_{11}NO_3$ **Average Molecular weight:**

181.19

**Solubility in Water:**

0.45 g/L (25 °C)

Product Code: P2010

Version: 6

Page 1 of 8

*success starts with the finest ingredients...*

**Particle Size:**

60-80 Mesh

**Percentage passed through:**

100%

**Specific rotation:**

-9.8° to -11.2°

**pH:**

5.0~6.5

**Loss on Drying:**

Max 0.30%

**Residue on Ignition:**

Max 0.40%

**Chomatographic Purity:**

Conforms

**Organic Volatile Impurities:**

Meets the requirements

**Sulphate:**

Max 0.04%

**Chloride:**

Max 0.04%

**Country of Origin:**

China

**Country of Origin of the Manufacture:**

China

**Base Source/Start Material:**

Duck Feathers

**Origin of Product – Synthetic, Plant, Mineral, Animal, Fish or Fermented:**

Animal

**Material is:**

100%

Product Code: P2010

Version: 6

Page 2 of 8



*success starts with the finest ingredients...*

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

None

**Shelf Life from Date of Manufacture:**

Min 2 Years

**Storage Conditions:**

Store in a cool, dry, well-ventilated area, Out of direct sunlight and moisture. Keep containers tightly closed.  
Store away from oxidising agents and other incompatible materials

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

Crystalline

**Colour:**

White to off white

**Flavour/Taste:**

Characteristic

**Odour:**

Characteristic

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

No

**Microbiological Test****Total Viable Count:**

Max 1,000cfu/g

**Yeast & Moulds:**

Max 100cfu/g

**E.Coli:**

Negative/10g

**Salmonella:**

Negative/25g

**Staphylococcus Aureus:**

Negative/25g



## **Heavy Metals**

### **Heavy Metals:**

Max 15ppm

### **Lead (Pb):**

Max 3ppm

### **Cadmium (Cd):**

Max 1ppm

### **Mercury (Hg):**

Max 0.1ppm

### **Iron:**

Max 30ppm

### **Arsenic (As):**

Max 1ppm

### **Pharmacopeia Standard Used:**

USP33

**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	N/A
Other 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	N/A
Sesame Seeds and Sesame Seed Derivatives	NO	NO	N/A
Other Seeds and Seed Derivatives (Poppy Seeds, Cotton Seeds, Sunflower Seeds)	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 WITH Gluten <i>(wheat, wheatgrass, faro, freekeh, spelt, kamut, rye, oats, barley, barley grass)</i>	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



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



**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".





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

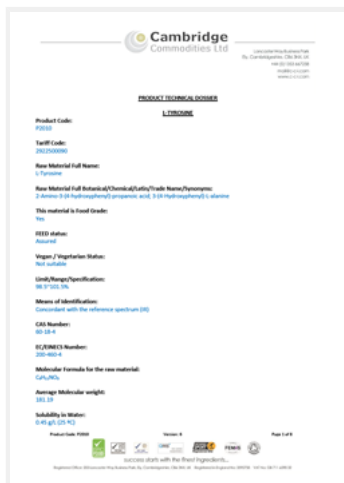
Version	Change	Customer Notification required Yes / No
1-3	First Issue	N/A
4	Base source Duck Feathers, Non Vegetarian/ Vegan suitable 31.05.2016	Yes
5	The Pharmacopeia was changed, and the E.coli, Salmonella and Staphylococcus Aureus was changed to make the results more accurate. 14.11.2016	Yes
6	Updated to new format Addition of FEMAS assured status. 27.10.2017	No

### Document Approval

Originator Job Title	Quality Specialist	Approver Job Title	Assistant Quality Manager
 Shannon McKenna (Oct 27, 2017)		 Richard Cecil	















# P2010 - Tyrosine (L) - Technical dossier

Adobe Sign Document History

10/27/2017

Created:	10/27/2017
By:	Emma Dane (emma.dane@c-c-l.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAxsyL-SKe_czaDFxOw_bI3FCBjM5UaUwm

## "P2010 - Tyrosine (L) - Technical dossier" History

-  Document uploaded by Emma Dane (emma.dane@c-c-l.com) from Acrobat  
10/27/2017 - 6:38:07 AM PDT- IP address: 81.145.42.226
-  Document emailed to Shannon McKenna (shannon.mckenna@c-c-l.com) for signature  
10/27/2017 - 6:38:09 AM PDT
-  Document viewed by Shannon McKenna (shannon.mckenna@c-c-l.com)  
10/27/2017 - 6:38:43 AM PDT- IP address: 81.145.42.226
-  Document e-signed by Shannon McKenna (shannon.mckenna@c-c-l.com)  
Signature Date: 10/27/2017 - 6:38:55 AM PDT - Time Source: server- IP address: 81.145.42.226
-  Document emailed to Richard Cecil (Richard.Cecil@c-c-l.com) for signature  
10/27/2017 - 6:38:56 AM PDT
-  Document viewed by Richard Cecil (Richard.Cecil@c-c-l.com)  
10/27/2017 - 6:40:15 AM PDT- IP address: 81.145.42.226
-  Document e-signed by Richard Cecil (Richard.Cecil@c-c-l.com)  
Signature Date: 10/27/2017 - 6:40:26 AM PDT - Time Source: server- IP address: 81.145.42.226
-  Signed document emailed to Emma Dane (emma.dane@c-c-l.com), Shannon McKenna (shannon.mckenna@c-c-l.com) and Richard Cecil (Richard.Cecil@c-c-l.com)  
10/27/2017 - 6:40:26 AM PDT



Adobe Sign