

PRODUCT TECHNICAL DOSSIER

L-Cysteine HCl Monohydrate

Product Code:

P0371

Tariff Code:

2930901300

Raw Material Full Name:

L-Cysteine Hcl Mono

This material is Food Grade:

Yes

Vegan / Vegetarian Status:

Yes

Assay:

99.0% - 100.5%

Identification:

Infrared absorption

CAS Number:

7048-04-6

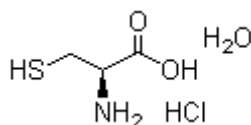
Molecular Formula for the raw material:

$C_3H_7NO_2S \text{ HCL } H_2O$

Average Molecular weight:

175.7g/mol

Molecular structure:



Specific Rotation:

+5.5° to +7.5°

State of solution (transmittance):

Clear and colourless not less than 98.0%

Ash:

<0.10%

Loss on Drying:

8.5 – 12%

pH:

1.5 – 2.0

Chloride (Cl):

19.89 – 20.29%

Ammonium (NH₄):

Max 0.02%

Sulphate (SO₄):

Max 0.020%

Other Amino Acids:

Chromatographically not detectable

Country of Origin:

China

Country of Origin of the Manufacture:

China

Base Source/Start Material:

Corn

Material is:

100%

Compound Ingredients:

None

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Shelf Life from Date of Manufacture:

2 Years from date of manufacture

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

Appearance:

Crystalline Powder

Colour:

White to Off White

Flavour/Taste:

Characteristic

Texture:

Crystalline

Odour:

Characteristic

Microbiological Test

Total Viable Count:

Max 1,000cfu/g

Yeast & Moulds:

Max 100cfu/g

E.Coli:

Negative

Salmonella:

Negative

Metals

Heavy Metals:

Max 5ppm

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Arsenic (As):

Max 1ppm

Iron (Fe)

Max 10ppm

Pharmacopeia Standard Used:

AJI92

French Arrêté 26 September 2016 list of substances authorized in food supplements.

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



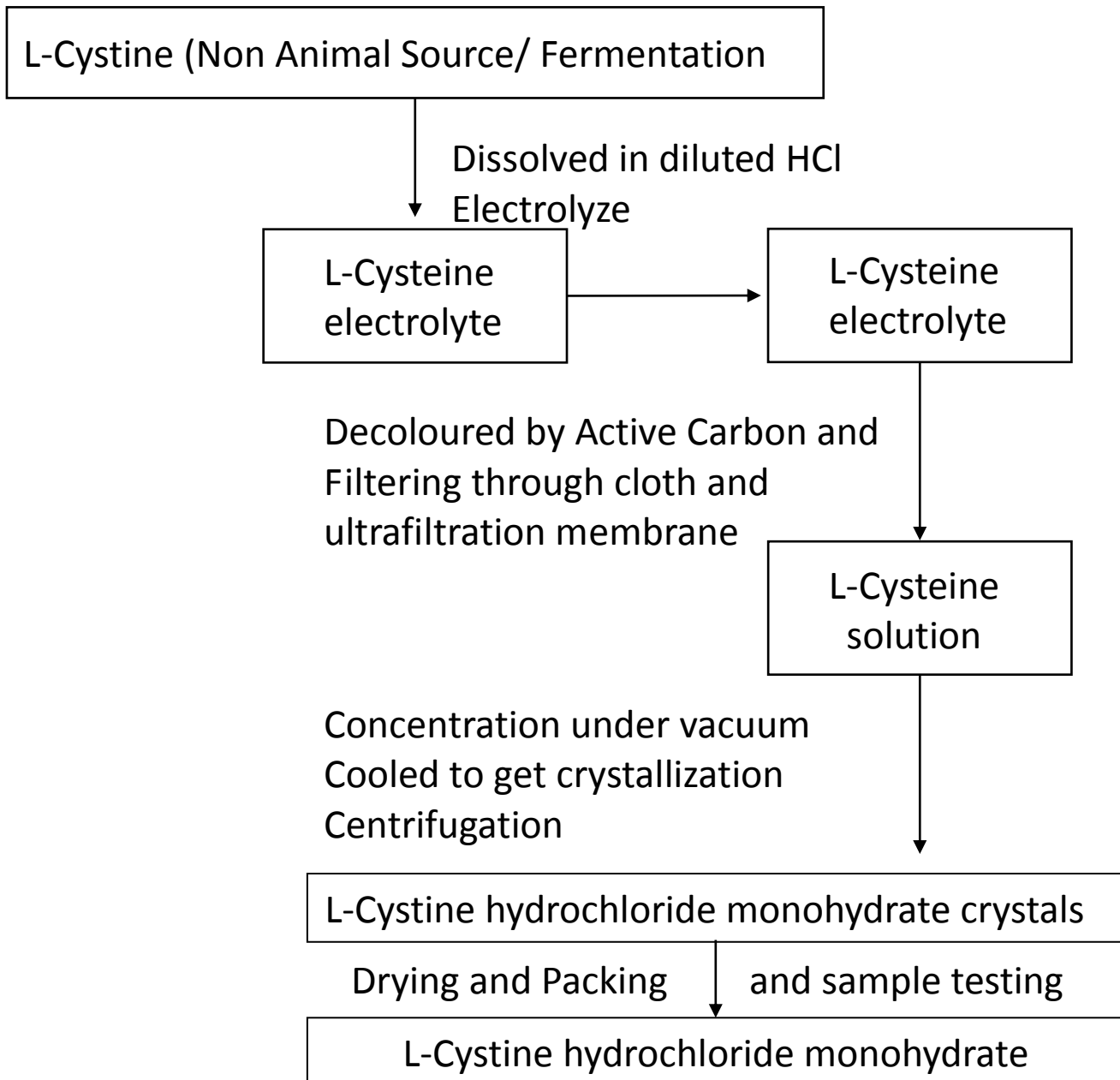
ALLERGENS	Product Contains YES/NO	Listed Item on Site at Manufacturer YES/NO	If YES, Please Comment
Peanuts and Peanut Derivatives (including possible cross contamination)	No	No	
Other Nut and Nut Derivatives <i>Almond (Amygdalus communis L.), Hazelnut (Corylus avellana), Walnut (Juglans regia), Cashew (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	No	Yes	Starting material
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	No	No	
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: L-Cysteine HCl Monohydrate
 PRODUCT CODE: P0371
 Company: Cambridge Commodities Limited
 78 Lancaster Way, Ely, Cambridgeshire, CB6 3NW.
 Tel: 01353 667258. Email: mail@c-c-l.com

Section 2 Hazards Identification

2.1 Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.2 Label elements

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher

Section 3 Composition/Information on Ingredients

<u>Components</u>	<u>% in Product</u>	<u>CAS Number</u>	<u>Formula</u>	<u>EINECS Number</u>
L-Cysteine HCl Monohydrate	98 - 100%	7048-04-6	C3H7NO2S HCL H2O	N/A

Section 4 Emergency and First Aid Measures

Inhalation:

Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion:

If swallowed, give several glasses of water to drink to dilute. If large amounts were swallowed or symptoms occur, get medical advice.

Skin Contact:

Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if irritation develops.



Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

Section 5 Fire-fighting measures

Fire: Not considered to be a fire hazard.

Explosion: Not considered to be an explosion hazard.

Fire Extinguishing Media: Use any means suitable for extinguishing surrounding fire.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

Section 6 Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal.

Section 7 Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

Section 8 Exposure Controls/Personal Protection

Airborne Exposure Limits: None established.

Ventilation System: In general, dilution ventilation is a satisfactory health hazard control for this substance. However, if conditions of use create discomfort to the worker, a local exhaust system should be considered.

Personal Respirators (NIOSH Approved):

For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator.

WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.



Skin Protection: Wear protective gloves and clean body-covering clothing.

Eye Protection:

Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Section 9 Physical and Chemical Properties

Appearance: White Crystalline solid. Hygroscopic.

Odour: Hydrogen sulphide odour.

Solubility: Appreciable (> 10%)

Specific Gravity: 1.50

pH: No information found.

%Volatiles by volume@ 21C (70F): 0

Boiling Point: Not applicable.

Melting Point: No information found.

Vapour Density (Air=1): Not applicable.

Vapour Pressure (mm Hg): Not applicable.

Evaporation Rate (BuAc=1): No information found.

Section 10 Stability and Reactivity

Stability:

Stable under ordinary conditions of use and storage. Decomposes and oxidizes slowly.

Hazardous Decomposition Products:

May form hydrogen sulphide, hydrogen chloride, and oxides of carbon, sulphur and nitrogen.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

Most common metals, iron and other heavy metals, copper, hydrogen chloride.

Conditions to Avoid:

Light and incompatibles.

Section 11 Toxicological Information

No LD50/LC50 information found relating to normal routes of occupational exposure.

Section 12 Ecological Information

Environmental Fate: No information found.



Environmental Toxicity: No information found.

Section 13 Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations.

Dispose of container and unused contents in accordance with federal, state and local requirements.

Section 14 Transport Information

Transport classification Not classified as dangerous for any mode of UK or International transport.

Section 15 Regulatory Information

Australian Hazchem Code: None allocated.

Poison Schedule: None allocated.

WHMIS:

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

Section 16 Other Information

This sheet generated by: Wuhan Amino Acid Bio-Chemical Co. Ltd

The information above is believed to be accurate and represents the best information currently available to us.

However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.

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.

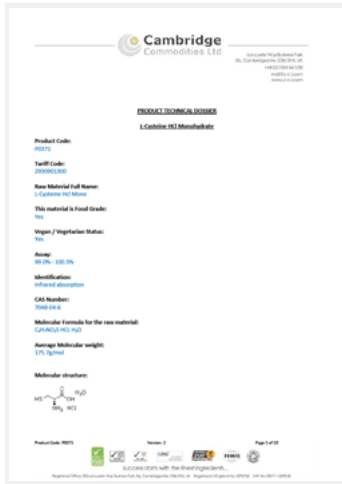
Change History

Version	Change	Customer Notification required Yes / No
1	First Issue	N/A
2	Format updated Tariff code, vegan/ vegetarian and food grade status added Nanoparticles and French Arrêté 26 September 2016 statements mentioned Flow chart included	No

Document Approval

Originator Job Title	Quality Specialist	Approver Job Title	Quality Specialist
 Lucia Valle (Apr 3, 2017)		 Shannon McKenna (Apr 3, 2017)	





Cysteine (L) HCL Monohydrate Vegan - P0371 - Technical Do ssier

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