

PRODUCT TECHNICAL DOSSIER

CREATINE ETHYL ESTER HCL

Product Code:

P03452

European Patent No 1324760 and 1688139

Raw Material Full Name:

Creatine Ethyl Ester HCL

This material is Food Grade:

Yes

Vegan / Vegetarian Status:

Suitable for both

Limit/Range/Specification:

Min 98.5%

Melting Point:

 $160^{\circ} C - 162^{\circ} C$

CAS Number:

15366-32-2

Molecular Formula for the raw material:

 $C_6H_{13}N_3O_2.HCL$

Average Molecular weight:

195.68

Chloride:

Min 18.5%

Particle Size:

100 Mesh

Percentage passed through:

Min 60%

Bulk Density:

>0.40g/ml

Product Code: P03452 Version: 2















Page 1 of 11



Tapped	Density:
---------------	-----------------

>0.50g/ml

Loss on Drying:

Max 0.5%

Residue on Ignition:

Max 0.1%

Country of Origin:

China

Country of Origin of the Manufacture:

China

Base Source/Start Material:

Creatine, Ethanol, HCL

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

Synthetic

Synthetic: What are the starting materials of the synthesis and their sources?

Creatine, Ethanol and HCL

Material is:

100%

Shelf Life from Date of Manufacture:

2 years

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 (Fine/Crystals/Crystalline/Hygroscopic):

Hygroscopic Powder

Texture:

Powder

Colour:

White to Yellowish

Product Code: P03452 Version: 2 Page 2 of 11

















Flavou	r/Taste:
--------	----------

Characteristic

Odour:

Characteristic

Microbiological Test

Total Viable Count:

Max 1,000cfu/g

Heavy Metals

Max 10ppm

Lead (Pb):

Max 3ppm

Cadmium (Cd):

Max 1ppm

Mercury (Hg):

Max 0.1ppm

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 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)	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 (wheat, wheatgrass, faro, freekeh, spelt, kamut, rye, oats, barley, barley grass)	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	

Product Code: P03452 Version: 2 Page 4 of 11

















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	No	
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	Ingredient
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	

Product Code: P03452 Version: 2 Page 5 of 11









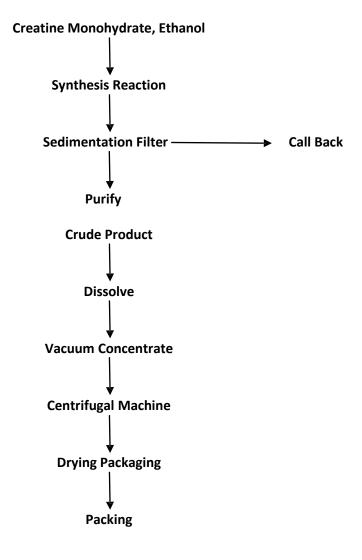








PRODUCTION FLOW CHART



Product Code: P03452 Version: 2 Page 6 of 11

















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".

Product Code: P03452

Version: 2

Page 7 of 11

















MATERIAL SAFETY DATA SHEET

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

Product name: Creatine Ethyl Ester HCL

Chemical formula: $C_6H_{13}N_3O_2.HCL$

Company: Cambridge Commodities Limited

Lancaster Way, Ely, Cambridgeshire, CB6 3NX Tel: 01353 667258. Email: qa@c-c-l.com

Section 2 Hazards Identification

May be irritating to eyes, Respiratory system and skin.

Section 3 Composition/Information on Ingredients

Components Creatine Ethyl Ester HCL

% in product 100% CAS number 15366-32-2 Formula $C_6H_{13}N_3O_2.HCL$

Section 4 Emergency and First Aid Measures

Eyes In case of contact immediately flush eyes with copious amounts of

Water for at least fifteen minutes

Skin In Case of contact, immediately wash skin with soap and copious

amounts of water

Swallowing If swallowed, wash out mouth with water providing person is

conscious, call a physician

Inhalation If Inhaled, remove to the fresh air. If not breathing give artificial

respiration. If breathing is difficult give Oxygen.

Section 5 Fire-fighting measures

Fire and Explosion Hazards Emits Toxic fumes under fire conditions.

Extinguishing Media Foam, water spray, carbon dioxide, dry chemical powder.

Fire Fighting Instructions Wear a self-contained breathing apparatus and protective clothing

to prevent contact with skin and eyes.

Product Code: P03452 Version: 2 Page 8 of 11

















Section 6 Accidental Release Measures

Procedures of personal precaution Wear respirator, chemical safety goggles, rubber boots and heavy

rubber gloves.

Cleaning up Methods Sweep up, place in a bag and hold for waste disposal. Avoid raising

dust. Ventilate area and wash spill site after material pickup is

complete.

Section 7 Handling and Storage

Handling Do not breathe in dust. Avoid Contact with eyes, Skin and clothing.

Avoid Prolonged Repeated Exposure.

Keep tightly Closed. Storage

During storage due to the nature of this material, it is prone to clumping. If material is found to have clumped together during storage, this is not reason enough to warrant rejection of the material.

Section 8 Exposure Controls/Personal Protection

Engineering Measures Safety Shower and eye Bath. Mechanical exhaust required.

Respiratory Protection Government approved Respirator. Hand/Body Protection Compatible chemical resistant Gloves.

Eye Protection Chemical Safety Goggles.

Section 9 Physical and Chemical Properties

Physical state Hygroscopic Powder. Colour White to Yellowish. Odour Characteristic.

Sieve Analysis 60% pass through 100 mesh.

Section 10 Stability and Reactivity

Chemical Stability Stable under conditions mentioned in section 7. May decompose

when exposed to light.

Hazardous Polymerisation Product will not undergo hazardous polymerisation.

Incompatibility Strong oxidising agents.

Hazardous Decomposition Products May form Carbon Dioxide, Carbon Monoxide and Nitrogen

Oxides.













Page 9 of 11



Section 11 Toxicological Information

See Registry of Toxic Effects of Chemical Substances (RTECS) for complete information.

Skin Contact Causes Skin Irritation

Skin Absorption May be harmful if absorbed through skin

Eye Contact Causes Eye irritation

Inhalation May be harmful in inhaled, Material is irritating to the mucous

membranes and upper respiratory tract.

Ingestion Harmful if swallowed in large amounts

Other Information This product is not believed to be hazardous when consumed in

normal amounts as part of a diet or dietary supplement.

Section 12 Ecological Information

Eco-toxicity No Data Available

Air pollution Observe local/national regulations

Section 13 Disposal Considerations

Waste from residues Contact a licensed professional waste Disposal service to dispose

of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical Incinerator equipped with an

after

burner and scrubber. Observe all federal, state, and local

environmental regulations.

Section 14 Transport Information

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

transport.

Section 15 Regulatory Information

Symbol of danger Xi
Indication of danger Irritant
R R36/37/38

Risk statements Irritating to eyes, respiratory system and skin.

26 3

Safety Statements In case of eye contact, rinse immediately with plenty of water

And seek medical advice. Wear suitable protective clothing.

Product Code: P03452 Version: 2 Page 10 of 11

















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 Added statement regarding storage condition		No

Document Approval

Originator Job Title	QC Technician	Approver Job Title	Quality Specialist
Alina H. Alina M. (Feb 7, 2017)		Shannon McKenna (Feb 7, 2017)	

Product Code: P03452















P03452 - Creatine Ethyl Ester Hydrochloride - Technical Dos sier

Adobe Sign Document History 02/07/2017

Created: 02/07/2017

By: Ash Bean (ash.bean@c-c-l.com)

Status: Signed

Transaction ID: CBJCHBCAABAAK4RoU2k1O8VaaCL6npK8oyISP3VJ9UxA

"P03452 - Creatine Ethyl Ester Hydrochloride - Technical Dos sier" History

- Document uploaded by Ash Bean (ash.bean@c-c-l.com) from Acrobat 02/07/2017 1:28:45 AM PST- IP address: 81.145.42.226
- Document emailed to Alina M. (alina.mocanu@c-c-l.com) for signature 02/07/2017 1:28:47 AM PST
- Document viewed by Alina M. (alina.mocanu@c-c-l.com)
 02/07/2017 2:45:55 AM PST- IP address: 81.145.42.226
- Document e-signed by Alina M. (alina.mocanu@c-c-l.com)

 Signature Date: 02/07/2017 2:46:22 AM PST Time Source: server- IP address: 81.145.42.226
- Document emailed to Shannon McKenna (shannon.mckenna@c-c-l.com) for signature 02/07/2017 2:46:23 AM PST
- Document viewed by Shannon McKenna (shannon.mckenna@c-c-l.com) 02/07/2017 2:48:58 AM PST- IP address: 81.145.42.226
- Document e-signed by Shannon McKenna (shannon.mckenna@c-c-l.com)
 Signature Date: 02/07/2017 2:50:04 AM PST Time Source: server- IP address: 81.145.42.226
- Signed document emailed to Ash Bean (ash.bean@c-c-l.com), Alina M. (alina.mocanu@c-c-l.com) and Shannon McKenna (shannon.mckenna@c-c-l.com)

 02/07/2017 2:50:04 AM PST