

## Product Technical Dossier

Product	Manganese Sulphate (32.18 - 32.83% Mn)
CCL Product Code	P1311

### Specification Details

Identification (A, B, C)	Specification
Assay (on as is basis)	Positive
Appearance	99-101%
Colour	Fine power
Aroma	Pale pink
Flavour	Characteristic
Sieve Analysis % passed	< 5% on 60 mesh
Chlorides	Max 100ppm
Substances not precipitated by ammonium sulfide	Max 0.5%

### Heavy Metal Limits

Cadmium (Cd)	Max 1ppm
Mercury (Hg)	Max 0.1ppm
Iron	Max 10ppm
Zinc	Max 50ppm

Product Code: P1311

Version: 6

Page 1 of 7

Committed to meeting quality standards. BRC Food Safety . FEMAS . FSMA . Informed Manufacturer. Soil Association  
Organic . Halal . Kosher .

For a full range of our accreditations visit [www.cambridgecommodities.com/quality-accreditations/certificates](http://www.cambridgecommodities.com/quality-accreditations/certificates)



+44 (0) 1353667258 | [www.cambridgecommodities.com](http://www.cambridgecommodities.com) | [enquiries@cambridgecommodities.com](mailto:enquiries@cambridgecommodities.com)

#### Additional Technical Information

Raw Material Full Botanical / Chemical Name	Manganese Sulphate Monohydrate
The material is Food Grade	Yes
Country of Origin	USA/China/India
Country of Manufacture	USA/China/India
Melting point	400-450 °C
Solubility in Water	76.2g/100ml
Average Molecular weight	169.02g/mol
Molecular Formula	MnSO <sub>4</sub> .H <sub>2</sub> O
CAS Number	10034-96-5
EC/EINECS Number	232-089-9
Shelf Life from Date of Manufacture	Min 3 years (batch specific)
Pharmacopeia Standard Used	USP / EP
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	Function	% composition	Source
Manganese sulphate monohydrate	n/a	100%	Synthetic (Manganese & Sulphuric acid)

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.



Allergens	Product Contains YES/NO	Listed Item on Site at Manufacturer YES/NO	Please select risk rating A to E as per the key 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 (wheat, wheatgrass, faro, freekeh, spelt, kamut, rye, oats, barley, barley grass)	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



Additives / Contaminants / Dietary Requirements / Intolerances	Product Contains YES/NO	Listed Item on Site at Manufacturer YES/NO	Please select risk rating A to E as per the key 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
Kiwi fruit	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

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

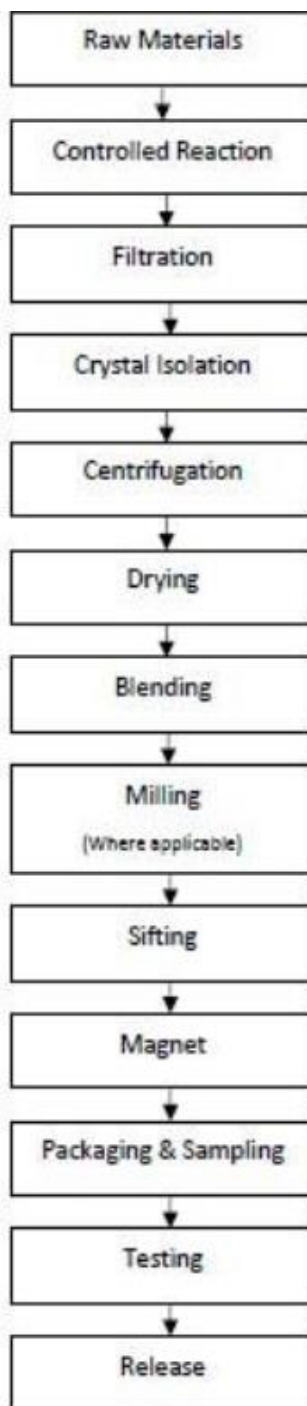


## Statements

<b>Confirmation of BSE / TSE Status</b> 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.	Yes
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.	Yes
<b>Confirmation of GM Status</b> This is to certify that this product is not manufactured from GM raw materials and is therefore not subject to labelling under current regulations.	Yes
<b>Confirmation of Non-Irradiation Status</b> This is to certify that this product, whole or in part, has not been subjected to Ionising Radiation as per European Directives.	Yes
<b>Confirmation of Nandrolone Status</b> 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.	Yes
<b>Confirmation of IOC Product Status</b> 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.	Yes
<b>Confirmation of Animal Testing Status</b> 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.	Yes
<b>Confirmation of Pesticides Status</b> This is to certify that the above-mentioned product complies with the EU max residue limits (MRLs) on pesticides.	Yes
<b>Confirmation of Nanoparticles Status</b> 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".	Yes
<b>Packaging Status</b> We hereby certify that the packaging used in the above-mentioned material conforms to EU regulations and subsequent amendments on food grade packaging	Yes
<b>Confirmation of PAH status</b> This is to certify that the above-mentioned product complies with the max PAH limits set by the EU regulations	Yes



## Product Flow Chart



Product Code: P1311

Version: 6

Page 6 of 7

Committed to meeting quality standards. BRC Food Safety . FEMAS . FSMA . Informed Manufacturer. Soil Association  
Organic . Halal . Kosher .

For a full range of our accreditations visit [www.cambridgecommodities.com/quality-accreditations/certificates](http://www.cambridgecommodities.com/quality-accreditations/certificates)



+44 (0) 1353667258 | [www.cambridgecommodities.com](http://www.cambridgecommodities.com) | [enquiries@cambridgecommodities.com](mailto:enquiries@cambridgecommodities.com)

## 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	The Manganese Assay has been added	No
3	The method for Assay (as Manganese) has been added	No
4	Removed Mesh test on 100 Added cadmium and mercury, Assay (on as is basis), flowchart and additional technical information Updated to the new format	Yes
5	Removed specification for assay 98-102%, ash testing & residual solvents as no organic solvents are used. Changed coliforms spec from "Negative" to "Max 40cfu/g". Added additional supplementary technical information.	Yes
6	Removed Micro specifications, removed total heavy metal specification Added India to country of origin and manufacture Amended shelf life from 3 years to Min 3 years (batch specific)	YES

### Document Approval

Originator	Approver
 Alan Feetham QC Technician	 C White Senior Quality Specialist
13/12/2023 14:33	14/12/2023 07:23

Product Code: P1311

Version: 6

Page 7 of 7

Committed to meeting quality standards. BRC Food Safety . FEMAS . FSMA . Informed Manufacturer. Soil Association  
Organic . Halal . Kosher .

For a full range of our accreditations visit [www.cambridgecommodities.com/quality-accreditations/certificates](http://www.cambridgecommodities.com/quality-accreditations/certificates)



+44 (0) 1353667258 | [www.cambridgecommodities.com](http://www.cambridgecommodities.com) | [enquiries@cambridgecommodities.com](mailto:enquiries@cambridgecommodities.com)