



Certificate of Analysis/Conformance

Product	Vitamin C - Ascorbic Acid	
Batch number	4425611	
Best before end	March 2024	
Production date	March 2021	
Identification	Positive	
Melting point	191.2°C	
pH (5% aqueous solution)	2.36	
pH (2% aqueous solution)	2.54	
Clarity of solution	Clear	
Colour of solution	<BY7	
Copper	<5ppm	
Heavy metals	<10ppm	
Mercury	<0.1mg/kg	
Lead	<2ppm	
Arsenic	<3ppm	
Cadmium	<1mg/kg	
Oxalic acid	<0.2%	
Iron	<2ppm	
Loss on drying	<0.4%	
Ash (residue on ignition)	<0.1%	
Specific optical rotation	+21.11°	
Organic volatile impurities	Pass	
Impurity E	<0.2%	
Related substances	Impurity C	<0.15%
	Impurity D	<0.15%
	Unspecified	<0.1%
	Total	<0.2%
Total plate count	100cfu/g max	
E. coli	Negative	
Yeast and mould	100cfu/g max	
Pseudomonas	Negative	
Staphylococcus	Negative	
Salmonella	Negative	
Colour reaction	Pass test	
Reducing reaction	Pass test	
Assay	99.82%	

This document is to certify that the above-mentioned goods comply with the agreed product specifications. The details given are to the best of our knowledge. Results may be based on analysis conducted by an approved supplier.

No Allergen Statement

We hereby certify that supplied following product

.....ASCORBIC ACID AND SODIUM ASCORBATE.....
(product/product)

do not contain any product of the following allergen list and there is no possibility of cross contamination

1. Cereals containing gluten and products thereof
2. Crustaceans and products thereof
3. Eggs and products thereof
4. Fish and products thereof
5. Peanut and products thereof
6. Soybeans and thereof
7. Milk and diary products, including lactose
8. Nuts and products
9. Celery and products thereof
10. Mustard and products thereof
11. Sesame seeds and products thereof
12. Sulphur dioxide and sulphites at concentrations $\geq 10\text{mg/kg}$
13. Lupin and products thereof
14. Mollucs and products thereof

There are no possible to cross contamination

Product complies with EU Regulation 1169/2011.



FLOW CHART

SORBITOL — FIRST STEP FERMENTATION — SORBOSE — SECOND STEP
FERMENTATION — GULONIC ACID — ESTERIFICATION — TRANSFORMATION
— ACIDIZATION — COARSE VC — DISSOLVE &DECOLOR — FILTER —
CRYSTALLIZATION — CENTRIFUGAL — DRYING — INSPECTION — PACKAGE —
VITAMIN C



Nov.01,2019

Statement

We hereby certify that supplied ASCORBIC ACID is not GMO and meets the requirements according to the Regulation (EC) No 1829/2003 of the European Parliament and of the Council of 22 September 2003 on genetically modified food and feed (Text with EEA relevance) and Regulation (EC) No 1830/2003 of the European Parliament and of the Council of 22 September 2003 concerning the traceability and labelling of genetically modified organisms and the traceability of food and feed products produced from genetically modified organisms and amending Directive 2001/18/EC/

MATERIAL SAFETY DATA SHEET OF ASCORBIC ACID

Date: Sep.05,2019

Section 1 - Chemical product and company identification

MSDS name: L-(+)- the Ascorbic acid

Synonyms: vitamin C

Company Identification: Madar Corporation Limited

19 - 20 Sandleheath Industrial Estate, Fordingbridge, SP6 1PA

Tel: +44 01425 655 555

Section 2 - Hazards Identification

2.1 Classification of the substance or mixture (Regulation (EC) No 1272/2008)

Not a hazardous substance or mixture.

2.2 Label elements

Labelling (REGULATION 29 CFR 1910.1200)

Not a hazardous substance or mixture.

2.3 Other hazards

Risk of dust explosion.

According to the criteria of chemical classification settled in 《Globally Harmonized System of Classification and Labeling of Chemicals》, this product is not dangerous.

Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Concentration(%)
50-81-7	L-Ascorbic Acid	100%

Section 4 - First Aid Measures

Eyes	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid.
Skin	Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.
Ingestion	Get medical aid. Wash mouth out with water.
Inhalation	Remove from exposure to fresh air immediately, if not breathing give artificial respiration . If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.
Notes to Physician	Treat symptomatically and

Section 5 - Fire Fighting Measures

General Information	As in any fire , wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH(approved or equivalent),and full protective gear.
Extinguishing Media	In case of fire use water spray, dry chemical, carbon dioxide, or chemical foam.
Autoignition Temperature	Not available.
Flash Point	Not available.
NFPH Rating	Not published.
Explosion Limits	Lower Not available. Upper Not available.

Section 6 - Accidental Release Measures

General Information Use proper personal protective equipment as indicated in section
Spills/Leaks Vacuum or sweep up material and place into a suitable disposal container.

Section 7 - Handling And Storage

Handling Avoid breathing dust , vapor , mist ,or gas ,Avoid contact with skin and eyes.
Storage Stored in a cool dry place ,stored in a tightly closed container.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls Use adequate ventilation to keep airborne concentrations low.

PERSONAL PROTECTIVE EQUIPMENT

Eyes Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA ' s eye and face protection regulations in 29 OPR 1910.133 or European Standard EN166.
Skin Wear appropriate protective gloves to prevent skin exposure.
Clothing Wear appropriate protective clothing to prevent skin exposure.
Respirators Follow the OSHA respirator regulations found in 29 CFR 1910.134 Or European Standard EN149. Always use a NIOSH or European standard EN 145 sproved respirator when necessary.

Section 9 - Physical and Chemical Properties

Physical State Powder
Appearance White
Odor Not available
PH Not available
Vapor Pressure Negligible
Viscosity Not available
Boiling Point Not available
Freezing/Melting Point 190 °C
Decomposition Temperature Not available
Solubility 333 Gs/ L water at 20 °C
Specific Gravity /Density 1.7000g/cm³
Molecular Formula C₆H₈O₆
Molecular Weight 176.13

Section 10 - Stability and Reactivity

Chemical stability Stable under normal temperatures and pressures
Conditions to Avoid Incompatible materials light exposure to air
Incompatibilities with Other Materials Strong oxidizing agents
Hazardous Decomposition Products Carbon monoxide carbon dioxide
Hazardous Polymerization Will not occur

Section 11 - Toxicological Information

RTECS # CAS # 50-81-7: C 17650000
LD50/LC50 CAS # 50-81-7: Oral mouse; LD50 =3367mg/kg Oral rat: LD50=11900mgkg
Carcinogenicity L-(+)-Ascorbic acid Not listed by ACGLIL IARC NIOSH NTP, or OSHA
Other see actual entry in RTECS for complete information

Section 12 - Ecological Information

For further information contact

Section 13 - Disposal Considerations

Dispose of in a manner consistent with local regulations.

Section 14 - Transport Information

According to the criteria of chemical classification settled in 《Globally Harmonized System of classification and Labelling of Chemicals》, this substance is not dangerous and regulated by IMO/IMDG

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available.

Risk Phrases;

Safety Phrases;

S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS # 50-81-7:0

Canada

CAS#50-81-7 is listed on Canada ' s DSLADSL List.

CAS#50-81-7 is not listed on Canada ' s ingredient disclosure list.

Exposure Limits

US FEDERAL

TSCA

CAS # 50-81-7 is listed on the TSCA inventory.

Section 16 - Additional Information

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.



Product Specification

Product	L-Ascorbic Acid (Vitamin C)
Country of origin	China
Product Description	Colourless, crystals or a white or almost white crystalline powder which dissolves on exposure to air and moisture; odourless or almost odourless and sour taste.
Chemical formula	C ₆ H ₈ O ₆
Packaging	25kg carton box with two plastic inner linings and vacuum bag
Shelf life	3 years
Storage Conditions	Cool, dry ambient conditions, away from direct sunlight

Analytical Standards

Molecular weight	176.13
Identification	Positive reaction
Melting point	About 190°C
pH (5% solution in water)	2.1-2.6
pH (2% solution in water)	2.4-2.8
Clarity of solution	Clear
Colour of solution	BY7max
Copper	5mg/kg max
Heavy metals	10ppm max
Iron	2ppm max
Oxalic acid	0.2% max
Sulphate ash (residue on ignition)	0.1% max
Specific optical rotation	+20.5°-+21.5°
Organic volatile impurities	Pass
Assay	99.0% - 100.5%
Loss on drying	≤0.4%
Arsenic	≤1ppm
Mercury	≤0.1ppm
Lead	≤0.4ppm

Nutritional Information, typical values per 100g

Energy, kcal	0
Energy, kJ	0
Protein	0
Total Fat	0
Of which saturates	0
Carbohydrates	0
Of which sugar	0
Fibre	0
Sodium	0

Quality Manual	Date: 03/08/2020	
	Issue: 1	

Allergen Information

Is this product free from:	Y/N	Comments:
Eggs and products thereof	Y	
Milk and products thereof	Y	
Fish and products thereof	Y	
Crustaceans and products thereof	Y	
Molluscs and products thereof	Y	
Peanuts and products thereof	Y	
Tree nuts (e.g. almonds, hazelnuts, walnuts, cashews, pecans, brazils, pistachios, macadamia nuts or Queensland nuts) and products thereof	Y	
Sesame seeds and products thereof	Y	
Cereals containing gluten (e.g. wheat, spelt, rye, barley, oats, or their hybridised strains) and products thereof	Y	
Soya and products thereof	Y	
Celery and celeriac and products thereof	Y	
Mustard and products thereof	Y	
Lupin and products thereof	Y	
Sulphur dioxide and sulphites (at concentrations >10ppm)	Y	

Special Dietary Requirements

Is this product suitable for:	Y/N	Comments
Vegetarians	Y	
Vegans	Y	
Kosher	Y	
Halal	Y	

Specification Approval:

Customer	Contact	Position	Signature	Date

If this specification is not received signed within 3 working days it will be deemed as accepted.

Document Amendments:

Issue No:	Reason for Issue	Date:	Issued by:	Approved by:
01	-	03/08/2020	J Sharrocks	R Hanson

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Quality Manual	Date: 03/08/2020	
	Issue: 1	