KEEP INGREDIENTS CO. LTD

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TECHNICAL DATA SHEET

Magnesium Bisglycinate (Magnesium 11%)

1. PRODUCT DESCRIPTION

Magnesium Bisglycinate (chelated magnesium glycinate) is the chelated form of magnesium with glycine, supplied with a magnesium content of 11%. It is a food nutrition reinforcement material produced by synthesis from food-grade glycine and magnesium oxide, followed by decolorization, fine filtration, crystallization, drying, sieving and packing. The product is a pure substance consisting of 100% magnesium bisglycinate with no additional excipients.

2. PRODUCT INFORMATION

Item	Information
Product name	Magnesium Bisglycinate (Magnesium 11%)
Chemical name	Magnesium Bisglycinate (Chelated)
Molecular formula	Mg(C2H4NO2)2·2H2O
Molecular weight	208.44
CAS number	14783-68-7
Magnesium content	11%
Raw materials	Food-grade glycine and magnesium oxide
Appearance	White crystalline powder
Country of origin	China
Shelf life	2 years when well-closed packages are stored properly
Packing	Net 25 kg/package; inner food-grade PE bag, outer corrugated carton / fibre drum / laminated bag
Storage	Shaded, cool, dry, clean and ventilated place on pallets; do not store together with poisonous or harmful substances

The product is manufactured to enterprise standard Q/LWS 6012-2025 (Food nutrition reinforcement – Magnesium Bisglycinate).

3. INGREDIENT STATEMENT

Ingredient statement

Ingredient	Content
Magnesium Bisglycinate	100%
Excipients	None

As declared by the manufacturer: the 11% magnesium glycinate is a pure substance composed of 100% magnesium bisglycinate and does not contain any other excipients.

4. PRODUCT SPECIFICATION

Item	Specification	Test method
Appearance	White crystalline powder	Visual observation
Magnesium Bisglycinate	≥ 98.0%	Titration
Magnesium (on dried basis)	≥ 11.0%	Titration
Loss on drying	≤ 1.0%	Oven method
pH	9.0–11.0	pH meter
Particle size	90% passing 60 mesh	Screening
Bulk density	≥ 0.50 g/cm³	Cylinder weighing method
Lead (Pb)	≤ 3 ppm	AAS
Arsenic (As)	≤ 1 ppm	AAS
Cadmium (Cd)	≤ 1 ppm	AAS
Mercury (Hg)	≤ 0.1 ppm	AAS
Total plate count	≤ 1,000 cfu/g	USP
Yeast and mould	≤ 100 cfu/g	USP
E. coli	Negative	USP
Salmonella	Negative	USP

5. NUTRITIONAL DATA

Item	Result
Moisture	0.77%
Magnesium	11.21%
Energy	1,189 kJ/100 g
Chloride	0.0035%
Calcium (Ca)	0.3 mg/100 g
Iron (Fe)	1.5 mg/100 g
Crude protein	0
Crude fat	0
Total dietary fibre	0
Carbohydrate	0
Sugar	0
Saturated fatty acids	0
Sodium (Na)	0
Vitamin A	0
Vitamin C	0

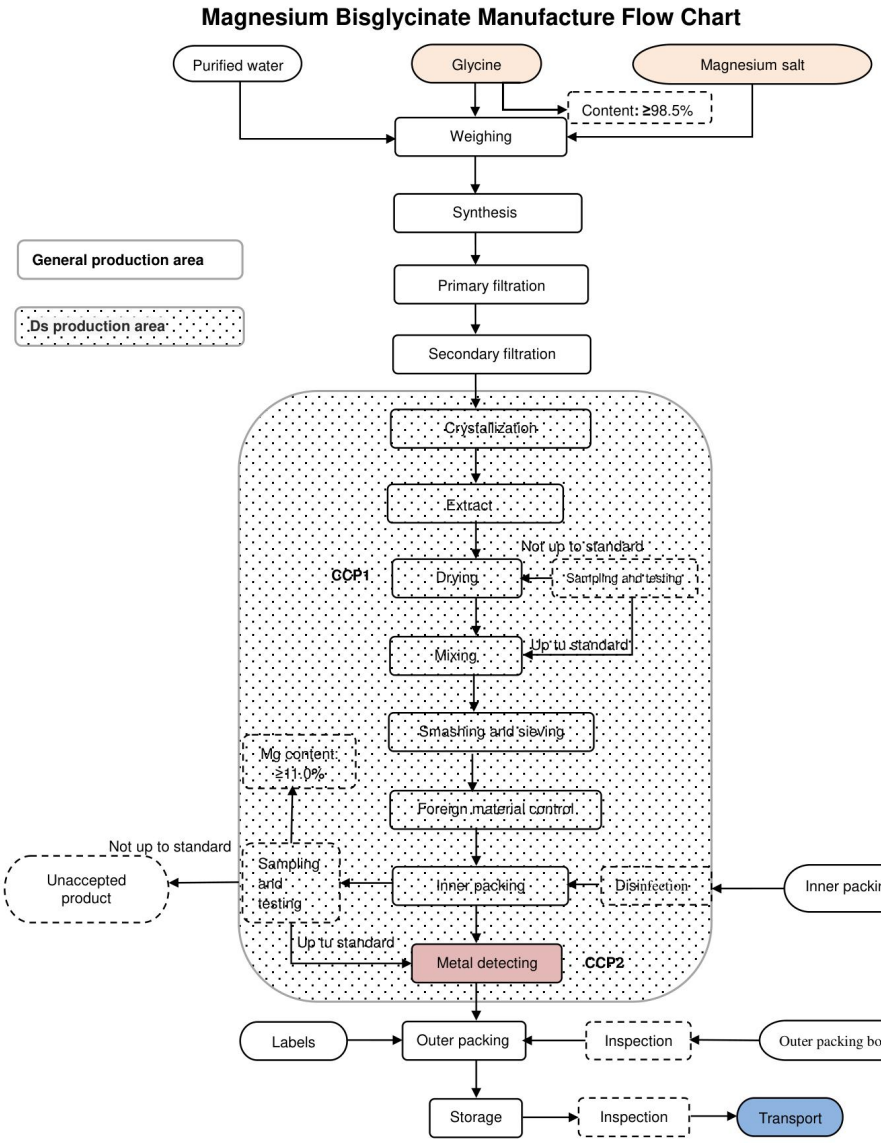


6. PRODUCTION PROCESS

Magnesium Bisglycinate is produced by chemical synthesis. The main process steps (a flow chart with HACCP critical control points) are as follows:

- Raw materials: glycine, purified water and magnesium salt → weighing
- Synthesis → primary filtration → secondary filtration (product content ≥ 98.5%, Mg ≥ 11.0%)
- Crystallization → extraction → drying (CCP1) → mixing
- Smashing and sieving → foreign-material control → inner packing
- Metal detection (CCP2) → outer packing → storage → inspection → transport
- Crystallization onwards is carried out in a Ds-grade (clean) production area; weighing and synthesis take place in the general production area.

Critical control points (per HACCP plan): CCP1 — drying (temperature 65–90 °C, 1.5–2 h, vacuum ≥ −0.08 MPa); CCP2 — metal detection (Fe ≤ 1.0 mm, SUS ≤ 1.0 mm).



7. STORAGE AND TRANSPORTATION

- Store in shaded, cool, dry, clean and ventilated places on pallets; do not store together with poisonous or harmful substances.
- Shelf life: 2 years when well-closed packages are stored properly.
- During transport, avoid exposure to sunlight and rain; do not mix with toxic, harmful or odorous materials.

8. STATEMENTS AND COMPLIANCE

GMO-free. This product is free from genetically modified organisms and does not need to be labelled regarding any genetic modification as per Regulations (EC) 1829/2003 and 1830/2003 (including amendments).

Non-irradiation. This product and any raw material are not irradiated, in accordance with Directives 2/1999/EC and 3/1999/EC and Regulation 1169/2011.

Pesticides. The product is subject to statistical quality control and is free from pesticides as per Regulation (EC) No. 396/2005 (including amendments); analytical results available upon request.

Heavy metals. The product complies with the maximum levels of heavy metals (Pb: 3.0 mg/kg, Cd: 1.0 mg/kg, Hg: 0.10 mg/kg) set forth in Regulation (EC) No. 1881/2006 (including amendments) regarding food supplements.

Allergen-free. The product is free from the following major allergens, with no risk of cross-contamination: cereals containing gluten (wheat, rye, barley, oats and their hybrids); crustaceans; eggs; fish; peanuts; soy; milk from all mammalian species; almonds; hazelnuts; cashew nuts; Brazil nuts; macadamias; walnuts; pecans; pistachios; pine nuts; chestnuts; and natural latex.

Residual solvents. This product has no residual solvents in accordance with Directive 2009/32/EC and subsequent amendments.

Vegetarian and vegan. To the best of the manufacturer's knowledge, the product is free of any raw materials of animal origin; it is chemically synthesized and therefore suitable for vegetarian and vegan applications.

BSE/TSE. This product is BSE/TSE-free and complies with Regulation (EC) No. 999/2001.

Food contact materials. The packaging material used for this product is in accordance with Regulation (EC) No. 1935/2004/EC and produced according to good manufacturing practice (Regulation 2023/2006/EC).

Certifications (per the manufacturer's TDS): FSSC 22000, ISO 9001, GMP, Kosher, Halal, Health Certificate and Certificate of Origin. Country of origin: China.

Statements above are transcribed from the manufacturer's declaration of compliance, allergen/GMO declaration, non-GMO declaration and residual-solvents statement.

9. CERTIFICATE OF ANALYSIS

Field	Detail
Test report No.	TJF26-0000960-01
Date of report	2026-01-20
Test laboratory	SGS-CSTC Standards Technical Services (Tianjin) Co., Ltd.
Sample name	Magnesium Bisglycinate
Sample batch No.	2025122802
Testing period	2026-01-13 ~ 2026-01-20

Item	Test method	Result
Aerobic plate count	GB 4789.2-2022	< 10 CFU/g
Mould	GB 4789.15-2016 (I)	< 10 CFU/g
Yeast	GB 4789.15-2016 (I)	< 10 CFU/g
Coliforms	GB 4789.3-2025 (II)	< 10 CFU/g
Salmonella	GB 4789.4-2024	Not detected /25 g
Staphylococcus aureus	GB 4789.10-2016 (I)	Not detected /25 g

Item	Test method	Result
Total arsenic (as As)	GB 5009.11-2024 (Chapter I, method II)	Not detected (LOQ 0.03 mg/kg)
Lead (as Pb)	GB 5009.12-2023 (II)	Not detected (LOQ 0.05 mg/kg)

Item	Test method	Result
Total mercury (as Hg)	GB 5009.17-2021 (Chapter I, method III)	Not detected (LOQ 0.003 mg/kg)
Cadmium (as Cd)	GB 5009.15-2023 (Method II)	Not detected (LOQ 0.005 mg/kg)

ND = Not detected; LOQ = Limit of Quantitation. Results are transcribed from the SGS test report (TJF26-0000960-01) for the above batch.

This Technical Data Sheet should be read in conjunction with the supplied test report, specification sheet, nutritional data and relevant statements. The information provided is based on the documents supplied by KEEP INGREDIENTS CO. LTD.