

Product Technical Data Sheet		
Product name: Magnesium Bisglycinate 20%		AC code: AC02214s
Item	Specifications	Test Methods
<b>Appearance</b>		
Appearance	White crystal or crystalline white powder	In-house
<b>Typical Analysis</b>		
Assay,%Magnesium	≥20.0	In-house
Cadmium ( as Cd), ppm	≤1	GB 5009.15
Arsenic(as As), ppm	≤1	GB 5009.76
Lead (as Pb) , ppm	≤3	GB 5009.75
Mercury(as Hg)ppm	≤0.1%	GB 5009.71
Total Plate Count, cfu/g	≤1000	GB 4789
Total Yeast& Mold , cfu/g	≤100	GB 4789
Salmonella	Negative	GB 4789
Escherichia	Negative	GB 4789
Bulk density,g/ ml	≥0.7	QB
Loss on drying,%	≤1	In-house
pH value	9.0~ 11.0	In-house
Particle size , %	80% passing 60 mesh	In-house
<b>Conclusion:</b> Test results conform to above-mentioned specifications		
<b>Packaging, transportation, storage, shelf life and origin country</b>		
Package	25KG NET DRUM	
Storage	preserve in tight containers at controlled room temperature.	
Shelf Life	24 months	
Origin Country	China	

## 2. Origin & Ingredient

Country of origin of the product: China

Origin statement: available

This product is a pure material <input checked="" type="checkbox"/>		This product is a compound material <input type="checkbox"/>	
	<input type="checkbox"/> bovine	Specific Source: /	
	<input type="checkbox"/> porcine	Specific Source: /	

Animal origin	<input type="checkbox"/> avian	Specific Source: /	
	<input type="checkbox"/> Others:	Specific Source: /	
Synthetic	<input type="checkbox"/>	Starting material: L- Cystine	origin: China
Biotechnological processing	<input type="checkbox"/> Catalysis By Enzymes	Name Of Enzyme: /	
		Sources Of Enzymes: /	
	<input type="checkbox"/> Fermentation	Source Of Medium: /	
		Strain: Bacteria:	

## 3. Nutrition Data

Nutritional Composition	<input checked="" type="checkbox"/> Per 100g	<input type="checkbox"/> Per Serving
	Calories	kJ/ kcal
Calories from Fat	kJ/ kcal	
Total Fat	0mg	
Saturated Fat	0mg	
Trans Fat	0mg	
Cholesterol	0mg	
Sodium	0mg	
Total Carbohydrate	0mg	
Dietary Fiber	0mg	
Sugars	0mg	

Protein	0mg
Vitamins and minerals - Calcium	0mg
Remarks: Nutrition Data Are Obtained By 3 <sup>rd</sup> Party Lab; Tested On A Yearly Basis	

4. GMO declaration	YES	NO (Means Not Contain)
The product does not contain or consist of GMO	<input type="checkbox"/>	<input checked="" type="checkbox"/>
The product is not produced from GMO or not contain ingredients produced from GMO (irrespective of whether there is NDA or protein of GM origin in the final production)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

This product is not produced by means of GM microorganism including precursor substances, e.g. with GMOs or Genetically Modified microorganisms processing aids(bacteria, yeast,..)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
This product is not produced with the help of enzymes, which were obtained from GMOs	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the product contain any ingredients from animal?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If yes, are genetically modified crops contained in the feed for the animal?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
We confirm that this product complies with regulations EC/ 1829/2003 and EC1831/2003 and keep NON-GMO statement available		<input checked="" type="checkbox"/>

## 5. Allergen declaration

Allergens refer to known foods or food ingredients that may cause allergic reactions in people with sensitive constitutions.

They include, but are not limited to, the substances listed in the table below. Please complete the following table indicating whether the products provided by your company contain allergens, and whether allergens are involved in the production process.

	Direct incorporation as a base raw material or in a derivative form (don't forget the carriers, the additives and the processing aids)		CROSS CONTAMINATION					
			Presence on the production line		Presence on the production workshop		Presence on the production factory	
	Yes (precise nature)	No	Yes (precise the nature)	No	Yes (precise the nature)	No	Yes (precise the nature)	No
Cereals containing gluten(1) and products thereof		N		N		N		N
Crustaceans and products thereof		N		N		N		N
Eggs and products thereof		N		N		N		N
Fish and products thereof (2)		N		N		N		N
Peanuts and products thereof		N		N		N		N
Soybeans and products thereof (3)		N		N		N		N
Milk and products thereof (including lactose)(4)		N		N		N		N
Nuts (5) or products thereof		N		N		N		N
Celery and products thereof		N		N		N		N
Mustard and products thereof		N		N		N		N
Sesame seeds and product thereof		N		N		N		N
Sulphur dioxide and sulphites at concentrations of more than 10mg/kg or 10 mg/l expressed as SO <sub>2</sub>		N		N		N		N
Lupines and products thereof		N		N		N		N
Mollusc and product thereof		N		N		N		N

(1) Cereals which contain gluten (i.e. wheat, rye, barley, oats, spelt, kamut or their hybridised strains) except: wheat - based glucose syrups including dextrose, wheat-based maltodextrins, glucose syrups based on barley, cereals used for making distillates or ethyl alcohol of agricultural origin for spirit drinks and other alcoholic beverages;

(2) Except: fish gelatine used as carrier for vitamin or carotenoid preparations, fish gelatine or Isinglass used as fining agent in beer and wine;

- (3) Except fully refined soybean oil and fat, natural mixed tocopherols (E306), natural D-alpha tocopherol, natural D-alpha tocopherol acetate, natural D-alpha tocopherol succinate from soybean sources; vegetable oils derived phytosterols and phytosterol esters from soybean sources; plant stanol ester produced from vegetable oil sterols from soybean sources;
- (4) Except when used for making distillates or ethyl alcohol of agricultural origin for spirit drinks and other alcoholic beverages, lactitol;
- (5) almond (*Amygdalus communis* L.) hazelnuts (*Corylus avellana*), walnut (*Juglans regia*), cashew (*Anacardium occidentale*), pecan nuts (*Carya illinoensis*), brazil nut (*Bertholletia excelsa*), pistachio nut (*Pistacia vera*), macadamia nut and queensland nut (*Macadamia terniflora*) and products thereof, except nuts used for making distillates or ethyl alcohol of agricultural origin for spirit drinks and other alcoholic beverages;

<b>6. NON IRRADIATION</b>		
(According to EU directive 1999/2/EC & 1999/3/EC)		
This product has not been treated with ionising radiation	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO, not treated
None of the raw materials we used for this product have been treated with ionising radiation.	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO, not treated
We confirm above Non-Irradiation statement is available	<input checked="" type="checkbox"/>	

<b>7. NANOMATERIAL</b>		
(according to EU Regulation (EU) No. 1169/2011)		
This product does not contain any nanomaterials as defined in EU food legislation	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO, does not contain
This product has not been made with nanotechnology	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO, is not made with
		nanotechnology
We confirm above Non-Nanomaterial statement is available	<input checked="" type="checkbox"/>	

8 . Residual solvents	
(according to UE Directive 2009/32 modified by(UE)2010/59; EP5 .4;USP476;ICH Q3C(R7))	
For this product following solvents are used during production process:  Solvent A: Ethanol                      max residual level: 0.5%	<input checked="" type="checkbox"/> solvent used  <input type="checkbox"/> solvent not used
We confirm solvent residual of this product complies with:	<input checked="" type="checkbox"/> EP 7.0  <input checked="" type="checkbox"/> USP <476>
We confirm Solvent residual statement is available	<input checked="" type="checkbox"/>

9.Pesticide residual	
(according to EC 396/2005; EP07; USP <561>)	
This product is of vegetable origin	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
We confirm pesticide residual of this product complies with:	<input checked="" type="checkbox"/> EC 396/2005  <input checked="" type="checkbox"/> EP 07/2008  <input checked="" type="checkbox"/> USP<561>
Pesticide residual statement available	<input checked="" type="checkbox"/>

10 . BSE/TSE information	
(according to EU legislation 999/200 1 ; EP general chapter 5.2 .8)	
<p>Cattle, sheep, goats and animals that are naturally susceptible to infect with transmissible spongiform encephalopathy agents or susceptible to infection through the oral route other than humans and non-human primates are defined as “ ESE-relevant animal species</p> <p>Pigs ad birds are not naturally susceptible to infection via the oral route; therefore, they are not TSE-relevant animal species. Dogs, rabbits and fish are not TES-relevant animal species.”</p>	

the product contains no ingredients of ruminant origin and no materials derived from, or exposed to ruminants affected by or under quarantine for Transmitting Transmissible Spongiform Encephalopathy (TSE) / Bovine Spongiform Encephalopathy (BSE)	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> NA
In the manufacturing of this product, there is no any raw or source material and /or reagent used that is of animal origin i.e. bovine, serum-albumin, enzymes, culture broths including those used to prepare working or master cell tanks	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
Equipment/systems/tools use for processing or storage of the material do not come into contact at any time with materials of animal origin (e.g., components of media filler used to check such system)	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
The material is not purified by using solvents, chromatographic media or buffers that contain components of animal origin	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
We confirm this product complies with:	<input checked="" type="checkbox"/> EU legislation 999/ 2001 & <input checked="" type="checkbox"/> EP general chapter 5.2.8
We confirm BSE/TSE statement is available	<input checked="" type="checkbox"/> YES

<b>11.Contaminants information</b>	
(according to EU Regulation No 915/2023 and NO.629/2008 as regards maximum levels for certain contaminants in foodstuff)	
<ul style="list-style-type: none"> <li>● Aflatoxin B1 &lt;5ppb</li> <li>● Aflatoxins B1 + B2 + G1 + G2 &lt;10ppb</li> <li>● Ochratoxin A &lt;15 ppb</li> </ul>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> NA
<ul style="list-style-type: none"> <li>● Melamine</li> </ul>	<input checked="" type="checkbox"/> YES
For polycyclic aromatic hydrocarbons, in cocoa fibre, banana chips , food supplements and their preparations , dried herbs <i>and dried spices</i> : <ul style="list-style-type: none"> <li>● Maximum level of 10 µg/ kg of benzo(a)pyrene</li> </ul>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> NA

<p>●50 µg/ kg for the sum of PAH4 (PAH4; benzo[a]pyrene ,chrysene , benz[a]anthracene and benzo[b]fluoranthene) in food supplements</p>	
<p>We confirm this product complies with Regulation (EU) 915/2023 and NO.629/2008 and keep compliance statement available</p>	<p><input checked="" type="checkbox"/>YES</p>

<p><b>12. Others</b></p>
<p>We confirm we could meet with the requirement on hygiene of foodstuffs according to Reg 852 / 20 04 .</p> <p>We confirm we could meet with the requirement on general principles and requirements of food law according to REGULATION (EC) No 178/2002</p>

### Flow chart

Food Grade Glycine

Material Dissolving → Filtration → Crystallization → Centrifugation → Drying → Sieving → Inner Packaging Reaction

Food Grade Magnesium Hydroxide

Metal Detection ※

Outer Packaging

Warehousing

※ Critical Control Point

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## Material Safety Data Sheet (MSDS)

### SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Common Name : Magnesium Bisglycinate

CAS# 14783-68-7

Manufacturer: Confidential

Product use: Suitable for pharmaceutical, cosmetics and food industries.

### SECTION 2 – HAZARD INFORMATION

Appearance: White powder

Caution! May be absorbed through intact skin. May cause eye and skin irritation. May cause respiratory tract irritation.

Target Organs: No data found. Potential Health Effects

Eye: May cause eye irritation. Skin: May cause skin irritation. Low hazard for usual industrial handling. May be absorbed through the skin.

Ingestion: Ingestion of large amounts may cause gastrointestinal irritation. Low hazard for usual industrial handling.

Inhalation: May cause respiratory tract irritation. Low hazard for usual industrial handling.

Chronic: No information found.

### SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Common Name: L-Cysteine HCl Monohydrate

Synonym : (R) -2-Amino-3-mercaptopropionic acid monohydrochloride monohydrate;  
Cysteine chlorhydrate monohydrate

Molecular Formula: C<sub>3</sub>H<sub>7</sub>NO<sub>2</sub>S·HCl·H<sub>2</sub>O

Molecular Weight: 175.63 g/mol

CAS No.: 7048-04-6

EC NO.: 200-157-7

Composition: 99% L-Cysteine HCl Monohydrate, the rest 1% is water.

### SECTION 4 - FIRST AID MEASURES

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid if irritation develops or persists. Wash clothing before reuse. Flush skin with plenty of soap and water.

Ingestion: Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

### SECTION 5-FIREFIGHTING 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. Dusts at sufficient concentrations can form explosive mixtures with air. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

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Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Flash Point: Not applicable.

Autoignition Temperature: Not available.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 1; Flammability: 1; Instability: 0

#### **SECTION 6 - ACCIDENTAL RELEASE MEASURES**

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container.

Clean up spills immediately, observing precautions in the Protective Equipment section.

Avoid generating dusty conditions. Provide ventilation.

#### **SECTION 7 – HANDLING AND STORAGE**

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid breathing dust.

Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

#### **SECTION 8 - EXPOSURE CONTROL/PERSONAL PROTECTION**

Engineering Controls: Local exhaust ventilation to control dust concentration; Provide safety shower and eye bath in the workplace.

Personal Protective Equipment:

Eye/Face Protection: Chemical safety goggles.

Respiratory Protection: Dustproof respirator or NIOSH-approved respirator when generating dust.

Skin Protection: Chemically compatible gloves (rubber/neoprene), protective clothing, rubber boots.

Hand Protection: Wear compatible chemical-resistant gloves.

Hygiene Measures: Wash hands before breaks and at the end of work. Do not eat, drink or smoke in the workplace.

#### **SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

Appearance: White crystalline powder.

Odor: Strongly acid taste and irritant odor.

Melting Point: 176°C

Decomposition Temperature: /

pH (25g/ L Solution, 25°C): 1.0~2.0 (2% solution:1.5~2.0)

Water Solubility: 100 g/L at 25°C

Density: /

Flash Point : Not applicable

Autoignition Temperature: /

Specific Rotation (20°C): +5.5° ~+7.0°

Particle Size: 12 mesh

#### **SECTION 10 STABILITY AND REACTIVITY**



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Stability: Chemically stable under normal temperature and storage conditions. May discolor on exposure to air and light. Protect from moisture.

Incompatibilities: Strong oxidizing agents, metals.

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Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, nitrogen oxides, sulfur oxides, hydrogen chloride gas (under fire/heating conditions).

Hazardous Polymerization: Will not occur.

#### **SECTION 11 TOXICOLOGICAL PROPERTIES**

Acute Toxicity: IPR-MUS LD50:1250 mg/kg; IVN-MUS LD50:1480 mg/kg; UNR-MUS LD50:3 mg/kg; Oral LD50 (Rat/Mouse) - No specific data, may be harmful if swallowed/absorbed through skin.

Skin Irritation: Causes skin irritation (in vitro/in vivo). May be harmful if absorbed through the skin.

Eye Irritation: Causes serious eye irritation (in vitro/in vivo).

Respiratory Irritation: Material is irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.

Carcinogenicity: Not listed by NTP, IARC, OSHA.

Other: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

#### **SECTION 12 - ECOLOGICAL INFORMATION**

Aquatic Toxicity: No specific data available.

Biodegradability: No specific data available.

Environmental Impact: Avoid discharge to environment. Do not allow product to enter water courses, drainage or soil.

Other: Ecological data not yet available.

#### **SECTION 13- DISPOSAL CONSIDERATIONS**

Disposal Method: 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 afterburner and scrubber. Small amounts can be disposed of with household waste in accordance with local regulations. Unwashed packaging shall be handled in accordance with official regulations.

Note: Observe all federal, state and local environmental regulations for waste disposal.

#### **SECTION 14 TRANSPORT INFORMATION**

UN Number: Not regulated.

Shipping Name: Non-hazardous goods .

Transport Hazard Class: Not regulated.

Packing Group: Not regulated.

Environmental Hazards: No.

IMO/IMDG: NOT DANGEROUS GOODS.

Transport for air, sea and road: Non-hazardous .

#### **SECTION 15 - REGULATORY INFORMATION**

Compliance: Complies with GB/T 16483, GB/T 17519, (EC) No 1907/2006, EU Regulation 1169/2011, EC/1829/2003, EC1830/2003, EC 396/2005, EU 999/2001, Reg 852/2004, REGULATION (EC) No 178/2002.

Chinese Regulatory Status: Not listed in hazardous chemicals catalog, priority control chemicals list, etc.



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Other: OEL=MAK NOES 1983: HZD X9440; NIS 2; TNF 196; NOS 6; TNE 1414; TFE 879.

**SECTION 16 - OTHER INFORMATION**

Disclaimer: The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.