

Safety Data Sheet
According to Regulation (EC) No 1907/2006, Annex II,
Amended by COMMISSION REGULATION (EU) 2015/830,
According to REGULATION (EC) No 1272/2008

Glycine

Version 1.0

Issue date: 05-11-2019

Revision date: 05-11-2019

SDS Record Number: CSSS-TCO-010-132890

Section 1 Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Identification on the label/Trade name:	Glycine
Additional identification:	Not available
Identification of the product:	CAS# 56-40-6; EC# 200-272-2
Index Number:	Not available
REACH registration No.:	01-2119451452-45-0000

1.2 Relevant identified uses of the substance or mixture and uses advised against:

1.2.1 Identified uses:

PC 0: Other: Food -Nutrition, chemical (C10, C10.8, C10.9, C20); Intermediate

PC 1: Adhesives, sealants

PC 2: Adsorbents

PC 3: Air care products

PC 4: Anti-freeze and de-icing products

PC 8: Biocidal products (e.g. disinfectants, pest control)

PC 9a: Coatings and paints, thinners, paint removes

PC 9b: Fillers, putties, plasters, modelling clay

PC 9c: Finger paints

PC 12: Fertilisers

PC 13: Fuels

PC 14: Metal surface treatment products

PC 15: Non-metal-surface treatment products

PC 18: Ink and toners

PC 19: Intermediate

PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents

PC 21: Laboratory chemicals

PC 23: Leather treatment products

PC 24: Lubricants, greases, release products

PC 26: Paper and board treatment products

PC 27: Plant protection products

PC 28: Perfumes, fragrances

PC 29: Pharmaceuticals

PC 30: Photo-chemicals

PC 31: Polishes and wax blends

PC 32: Polymer preparations and compounds

PC 34: Textile dyes, and impregnating products

PC 35: Washing and cleaning products

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PC 36: Water softeners
 PC 37: Water treatment chemicals
 PC 39: Cosmetics, personal care products
 SU 0: Other: SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)
 SU 1: Agriculture, forestry and fishing
 SU 2a: Mining (without offshore industries)
 SU 2b: Offshore industries
 SU 4: Manufacture of food products
 SU 5: Manufacture of textiles, leather, fur
 SU 6b: Manufacture of pulp, paper and paper products
 SU 8: Manufacture of bulk, large scale chemicals (including petroleum products)
 SU 9: Manufacture of fine chemicals
 SU 14: Manufacture of basic metals, including alloys
 SU 15: Manufacture of fabricated metal products, except machinery and equipment
 SU 16: Manufacture of computer, electronic and optical products, electrical equipment
 SU 17: General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment
 SU 20: Health services
 SU 23: Electricity, steam, gas water supply and sewage treatment
 SU 24: Scientific research and development

1.2.2 Uses advised against:

Not available.

1.3 Details of the supplier of the safety data sheet:

Supplier(Only representative): Chemical Inspection & Regulation Service Limited
 Supplier(Manufacturer): Shijiazhuang Chiyuen Food Technology Co., Ltd.
 Address: West Outer Ring Road, Economic Development Zone, Luancheng District, Shijiazhuang City, Hebei Province, China 051430
 Contact person(E-mail): Xu Qin (quality@donghuajian.com)
 Telephone: +86-17732818334
 Fax: -

1.4 Emergency telephone Number:

+353 (1) 477 3710 (Only available during office hours (9:00a.m.-17:30p.m.))

Available outside office hours? YES ☐ NO ☒

Section 2 Hazards Identification

2.1 Classification of the substance or mixture:

2.1.1 Classification:

According to REGULATION (EC) No 1272/2008, based on available data, the classification criteria are not met:

REGULATION (EC) No 1272/2008	
Hazard classes/Hazard categories	Hazard codes
Not classified	N/A

2.2 Label elements:

Hazard Pictograms: No hazard pictogram is used.
Signal Word(S): No signal word is used.
Hazard Statement: Not applicable.
Precautionary statement: Not applicable.

2.3 Other hazards:

The substance is not PBT / vPvB.

Section 3 Composition/information on ingredients

Substance/Mixture: Substance

Ingredient(s):

Chemical Name	Registration No.	CAS No.	EC No.	Concentration
Glycine	01-2119451452-45-0000	56-40-6	200-272-2	98.5-101.0%
Total ninhydrin-positive substance	N/A	N/A	N/A	≤1.0%
Loss on drying	N/A	N/A	N/A	≤0.5%
Total Impurities	N/A	N/A	N/A	≤0.2%
Sulphated Ash	N/A	N/A	N/A	≤0.1%
Related substances Impurities B	N/A	N/A	N/A	≤0.10%
Related substances Impurities H	N/A	N/A	N/A	≤0.10%
Related substances Impurities I	N/A	N/A	N/A	≤0.10%
Unspecified impurities	N/A	N/A	N/A	≤0.10%
Any ninhydrin-positive substance	N/A	N/A	N/A	≤0.10%
Ammonium	N/A	N/A	N/A	≤0.02%
Chloride	N/A	N/A	N/A	≤0.007%

Section 4 First aid measures

4.1 Description of first aid measures:

In all cases of doubt, or when symptoms persist, seek medical attention.

4.1.1 In case of inhalation:

If breathed in, move person into fresh air. If symptoms persist, call a physician.

4.1.2 In case of skin contact:

Immediately flush skin with large amounts of water. If skin irritation persists, call a physician.

4.1.3 In case of eyes contact:

If easy to do, remove contact lens, if worn. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

4.1.4 In case of ingestion:

If swallowed, DO NOT induce vomiting. If symptoms persist, call a physician. If a person vomits when lying on his back, place him in the recovery position.

4.2 Most important symptoms and effects, both acute and delayed:

The product is not classified as harmful to human health effect.

4.3 Indication of any immediate medical attention and special treatment needed:

If skin irritation or rash occurs, get medical advice/attention.

Section 5 Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media: Dry chemical, Water spray jet.

Unsuitable extinguishing media: Not available.

5.2 Special hazards arising from the substance or mixture

In case of fire hazardous decomposition products may be produced such as carbon oxides, nitrogen oxides (NO_x).

5.3 Advice for firefighters:

Wear self contained breathing apparatus for fire fighting if necessary.

Section 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel: Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation, especially in confined areas.

6.1.2 For emergency responders: Wear an appropriate NIOSH/MSHA approved respirator if dust is generated.

6.2 Environmental Precautions:

Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for Containment and Cleaning up:

Use mechanical handling equipment. Keep in suitable, closed containers for disposal. Clean contaminated surface thoroughly.

6.4 Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

Section 7 Handling and storage

7.1 Precautions for safe handling:

7.1.1 Protective measures:

For personal protection see SDS section 8. Avoid creating dust. Do not breathe dust. Avoid contact with skin and eyes. Remove all sources of ignition. Normal measures for preventive fire protection. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

7.1.2 Advice on general occupational hygiene:

Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities:

The product is stable at ambient temperature (25°C). Keep containers tightly closed in a dry, well ventilated place. Incompatible with acids and bases. Incompatible with oxidizing agents. Keep away from food, drink and animal feeding stuffs.

7.3 Specific end use(s):

Not applicable.

Section 8 Exposure Controls/Personal Protection

8.1 Control parameters:

8.1.1 Occupational exposure limits: Not available.

8.1.2 Additional exposure limits under the conditions of use: Not available.

8.1.3 DNEL/DMEL and PNEC-Values: Not available.

8.2 Exposure controls:

8.2.1 Appropriate engineering controls: Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

8.2.2 Individual protection measures, such as personal protective equipment:

Eye/face protection:	Safety glasses.
Hand protection:	Wear suitable gloves.
Body protection:	Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Respiratory protection:	In the case of dust or aerosol formation use respirator with an approved filter.
Thermal hazards:	Wear suitable protective clothing to prevent heat.
8.2.3 Environmental exposure controls:	Avoid discharge into the environment. According to local regulations, Federal and official regulations.

Section 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Appearance:	Crystal powder
Colour:	White
Odour:	Odorless, with a special sweet odor
Odour threshold:	Not available
pH:	Not available
Melting point/range (°C):	290 °C
Boiling point/range (°C):	375.67 °C
Flash point (°C):	Not available
Evaporation rate:	Not available
Flammability limit - lower (%):	Not available
Flammability (solid, gas):	Not available
Ignition temperature (°C):	Not available
Upper/lower explosive limits:	Not available
Vapour pressure (25°C):	0 mm Hg
Vapour density:	Not available
Density:	1.161 g/cm ³ (20 °C)
Bulk density (kg/m³):	Not available
Water solubility (g/l):	250 g/L (25 °C)
n-Octanol/Water (log Po/w):	-3.21
Auto-ignition temperature:	Not available
Decomposition temperature:	> 233 °C
Viscosity, dynamic (mPa.s):	Not available
Explosive properties:	Not available
Oxidising properties:	Not available
Molecular Formula:	C ₂ H ₅ NO ₂
Molecular Weight:	75.07

9.2. Other information:

Fat solubility(solvent-oil to be specified)	Not available
etc:	
Surface tension:	Not available
Dissociation constant in water(pKa):	2.35 (25 °C)
Oxidation-reduction Potential:	Not available

Section 10 Stability and reactivity

10.1 Reactivity: The substance is stable under normal storage and handling conditions.

Product name: Glycine

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10.2 Chemical stability:	Stable at room temperature in closed containers under normal storage and handling conditions.
10.3 Possibility of hazardous reactions:	No dangerous reactions known.
10.4 Conditions to avoid:	Incompatible materials. Heat, flames and sparks.
10.5 Incompatible materials:	Strong acids and strong bases, Oxidizing agents.
10.6 Hazardous decomposition products:	Carbon oxides, nitrogen oxides (nox).

Section 11 Toxicological information

11.1 Information on toxicological effects:

Acute toxicity:	
LD50(Oral, Rat):	Not available
LC50(Inhalation, Rat):	Not available
LD50(Dermal, Rabbit):	Not available
Skin corrosion/Irritation:	Not classified
Serious eye damage/irritation:	Not classified
Respiratory or skin sensitization:	Not classified
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
STOT- single exposure:	Not classified
STOT-repeated exposure:	Not classified
Aspiration hazard:	Not classified

Section 12 Ecological information

12.1 Toxicity:

Acute (short-term) toxicity:	
LC50(96h, Fish):	> 1000 mg/L
EC50(48h, Crustacea):	> 220 mg/L
EC50(72h, Algae/aquatic plants):	> 1000 mg/L
Chronic (long-term) toxicity:	
NOEC(Fish):	Not available
NOEC(Crustacea):	Not available
NOEC(Algae/aquatic plants):	>= 1000 mg/L

12.2 Persistence and degradability:	Readily biodegradable.
12.3 Bioaccumulative potential:	BCF: 3.16 L/kg
12.4 Mobility in soil:	log Koc: 0 (25 °C)
12.5 Results of PBT and vPvB assessment:	The substance is not PBT / vPvB.
12.6 Other adverse effects:	Not available.

Section 13 Disposal considerations

13.1 Waste treatment methods:	Any disposal practice must be in compliance with all local and national laws and regulations. Do not dump into any sewers, on the ground, or into any body of water.
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Section 14 Transport information

	Land transport (ADR/RID)	Inland waterways (ADN)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN number	Not regulated	Not regulated	Not regulated	Not regulated
UN Proper shipping name	Not regulated	Not regulated	Not regulated	Not regulated
Transport hazard Class(es)	Not regulated	Not regulated	Not regulated	Not regulated
Packing group	Not regulated	Not regulated	Not regulated	Not regulated
Environmental hazards	No	No	No	No
Special precautions for user	See section 2.2	See section 2.2	See section 2.2	See section 2.2
Transport in bulk according to Annex II of Marpol and the IBC Code	Not regulated	Not regulated	Not regulated	Not regulated

Section 15 Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

Relevant information regarding authorization: Not applicable.

Relevant information regarding restriction: Not applicable.

Other EU regulations: Employment restrictions concerning young person must be observed.
For use only by technically qualified individuals.

Other National regulations: Not applicable

15.2 Chemical safety assessment YES ☐ NO ☒

Section 16 Other information

16.1 Indication of changes:

Version 1.0 Amended by (EU) 2015/830

16.2 Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation for rail International transportation of Dangerous goods

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG: Code international maritime dangerous goods code

ICAO: International Civil Aviation Organization

IATA: International Air Transport Association

LC50: median lethal concentration

EC50: The effective concentration of substance that causes 50% of the maximum response.

NOEC: No Observed Effect Concentration

DNEL: derived no-effect level

PNEC: predicted no-effect concentration

16.3 Key literature references and sources for data

ECHA Registered substances data

16.4 Training instructions:

Not applicable.

16.5 Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

16.6 Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This

information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Author: Hangzhou REACH Technology Group Co., Ltd. **Website:** www.cirs-group.com **Tel:** 0571-87206555 **Email:** info@cirs-group.com