



# Material Safety Data Sheet

## Glycine MSDS

### 1. SUBSTANCE IDENTIFICATION

- 1.1. Product Name: [Glycine](#)
- 1.2. Description: Glycine is a proteinogenic amino acids manufactured through chemical synthesis from chloroacetic acid and ammonia.
- 1.3. Chemical Formula: C<sub>2</sub>H<sub>5</sub>NO<sub>2</sub>
- 1.4. Molecular weight: 75.0666
- 1.5. CAS #: 56-40-6
- 1.6. EINECS #: 200-272-2
- 1.7. Manufactured by: Foodchem International Corporation, Shanghai China.
- 1.8. Supplied by: Foodchem International Corporation, Shanghai China.
- 1.9. Usage: In food as nutritional supplements

### 2. Composition

- 2.1. Glycine: >98.5%
- 2.2. Hazardous impurities: Residue on ignition(as sulphated ash) 0.1 %, Chloride(As Cl) 0.02 %, Sulphate(As SO<sub>4</sub>) 0.0065 %, Ammonium(As NH<sub>4</sub>) 0.01 %, Arsenic( As As) 0.0001 %, Lead ( As Pb) 0.0005 %

### 3. Physical/Chemical Characteristics

- 3.1. Physical State: Powder
- 3.2. Appearance: White Crystals or crystalline powder
- 3.3. Odor: Odorless.
- 3.4. pH: 5.6
- 3.5. Melting point/range: Decomposition temperature: Starts to decompose at 233 ° C (451.4 ° F); Completely sintered at 280 deg. C.
- 3.6. Boiling point: Not available
- 3.7. Bulk density: 1.1607g/cm<sup>3</sup>
- 3.8. Solubility: Easily soluble in hot water. Soluble in cold water

### 4. Stability/Reactivity

- 4.1. Chemical Stability: Stable under normal temperatures and pressures
- 4.2. Shelf Life: 12 months period
- 4.3. Hazardous decomposition: Carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides (NO, NO<sub>2</sub>...)
- 4.4. Hazardous polymerization: Will not occur
- 4.5. Incompatible with: oxidizing agents.

### 5. Handling/Storage

- 5.1. Storage: Store in a cool and dry place and Keep away from strong light and heat
- 5.2. Handling precaution: Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material.

### 6. Exposure Control

- 6.1. Engineering Controls: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.
- 6.2. Respiratory protection: NIOSH/MSHA or European Standard EN 149 approved respirator
- 6.3. Eye Protection: Protective eyeglasses or chemical safety goggles
- 6.4. Skin Protection: Wear appropriate protective gloves and clothes to minimize skin contact.
- 6.5. Other: Consult professionals if Glycine need to be handled under some special conditions.



## 7. Hazards Identification

- 7.1. Hazardous overview: Glycine is Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation
- 7.2. Contact with eyes: May cause eye irritation.
- 7.3. Contact with skin: May cause skin irritation.
- 7.4. Ingestion: May irritate the tissues of the mouth, esophagus, and other tissues of the digestive system
- 7.5. Inhalation: May cause irritation to the respiratory tract and gastrointestinal
- 7.6. Other: Not Applicable

## 8. First Aid Measures

- 8.1. Contact with eyes: Flush immediately with plenty of water for 15 minutes and seek medical advice
- 8.2. Contact with skin: Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops
- 8.3. Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.
- 8.4. Inhalation: Remove from exposure, move to fresh air and seek medical advice immediately.

## 9. Fire and Explosion Data

- 9.1. General information: May be combustible at high temperature.
- 9.2. Flash point: Not available
- 9.3. Ignition control: Avoid ignition sources where Glycine powder might be generated.
- 9.4. Dust control: Keep the handling area with adequate ventilation
- 9.5. Extinguishing Media: Water spray, dry chemical or carbon dioxide
- 9.6. Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Absorb with DRY earth, sand or other non-combustible material. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed.

## 10. Transport Information

- 10.1. No special requirements and no restrictions on transportation by land, sea or air.

## 11. Ecological Information

- 11.1. Glycine is fully degradation biodegradable. The product itself and its products of degradation are not toxic

## 12. Other Information

- 12.1. This Safety Data Sheet of Glycine is based upon a limited review of Foodchem International Corporation files and standard Toxicological handbooks. 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 event shall Foodchem International Corporation 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 Foodchem International Corporation has been advised of the possibility of such damages.

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