1. IDENTIFICATION

Product identifier

Product code: AM125
Product Name: GLYCINE, USP

Other means of identification

Synonyms: Aminoacetic acid;
2-Aminoacetic acid;
Aminoethanoic acid;
Glicoamin;
Glycocoll;
Glycolixir;
Glycosthene;

CAS #: 56-40-6
RTECS #: MB7600000
CI#: Not available

Recommended use of the chemical and restrictions on use

Uses advised against: No information available

Supplier:

Spectrum Chemical Mfg. Corp
14422 South San Pedro St.
Gardena, CA 90248
(310) 516-8000

Order Online At: https://www.spectrumchemical.com
Emergency telephone number: Chemtrec 1-800-424-9300
Contact Person: Tom Tyner (USA - West Coast)
Contact Person: Ibad Tirmiz (USA - East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Label elements

Not classified

Hazards not otherwise classified (HNOC)

Not Applicable
Other hazards
Not available

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycine</td>
<td>56-40-6</td>
<td>100</td>
</tr>
</tbody>
</table>

### 4. FIRST AID MEASURES

**First aid measures**

**General Advice:**
National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.

**Skin Contact:**
Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention if irritation develops. Consult a physician if necessary.

**Eye Contact:**
Flush eyes with water for 15 minutes. Get medical attention if irritation occurs. If symptoms persist, call a physician.

**Inhalation:**
Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Ingestion:**
Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

**Most important symptoms and effects, both acute and delayed**

**Symptoms**
May cause eye/skin irritation
May cause nausea and vomiting

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician:**
Treat symptomatically.

**Protection of first-aiders**
First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

### 5. FIRE-FIGHTING MEASURES

**Extinguishing Media**

**Suitable Extinguishing Media:**
Carbon dioxide (CO2). Dry chemical. Water spray mist or foam.

**Unsuitable Extinguishing Media:**
No information available.

**Specific hazards arising from the chemical**

**Hazardous combustion products**
Carbon Monoxide, Carbon Dioxide. Nitrogen oxides (NOx).

**Specific hazards**
May be combustible at high temperatures.

**Special Protective Actions for Firefighters**

Product code: AM125  
Product name: GLYCINE, USP
Specific Methods: No information available

Special Protective Equipment for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Remove all sources of ignition.

Environmental precautions Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions: Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. All equipment used when handling the product must be grounded. Keep away from incompatible materials.

Safe Handling Advice: Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Avoid dust formation. Do not ingest. Do not breathe dust. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions: Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

Incompatible Materials: Strong oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>OSHA</th>
<th>NIOSH</th>
<th>ACGIH</th>
<th>AIHA WEEL</th>
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</thead>
<tbody>
<tr>
<td>Glycine</td>
<td>56-40-6</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
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</table>

Canada

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>Canada - Alberta</th>
<th>Canada - British</th>
<th>Canada - Ontario</th>
<th>Canada - Quebec</th>
</tr>
</thead>
</table>
Columbia  Glycine  56-40-6  None  None  None  None

Australia and Mexico

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>Australia</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycine</td>
<td>56-40-6</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Appropriate engineering controls

Engineering measures to reduce exposure: Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection: Safety glasses Safety glasses with side-shields.

Skin and body protection: Long sleeved clothing Chemical resistant apron Gloves

Respiratory protection: Effective dust mask. Use a dust respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentration of dust (dust clouds), inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.

Hygiene measures: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Physical state:</td>
<td>Solid</td>
</tr>
<tr>
<td>Appearance:</td>
<td>Crystalline powder. Crystals.</td>
</tr>
<tr>
<td>Color:</td>
<td>White.</td>
</tr>
<tr>
<td>Molecular/Formula weight (g/mole):</td>
<td>75.07</td>
</tr>
<tr>
<td>Formula</td>
<td>C2-H5-N-O2</td>
</tr>
<tr>
<td>Odor:</td>
<td>Odorless.</td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
<td>No data available</td>
</tr>
<tr>
<td>Flashpoint (°C/°F):</td>
<td>&gt;176.67 °C/350 °F</td>
</tr>
<tr>
<td>Flash Point Tested according to:</td>
<td>Closed cup</td>
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<tr>
<td>Autoignition Temperature (°C/°F):</td>
<td>No information available</td>
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<tr>
<td>Upper Explosion Limit (%):</td>
<td>No information available</td>
</tr>
<tr>
<td>Melting point/range(°C/°F):</td>
<td>182 °C/359.6 °F</td>
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<tr>
<td>Lower Explosion Limit (%):</td>
<td>No information available</td>
</tr>
<tr>
<td>Boiling point/range(°C/°F):</td>
<td>No information available</td>
</tr>
<tr>
<td>Decomposition temperature(°C/°F):</td>
<td>Starts to decompose at 233°C (451.4°F); Completely sintered at 280 deg. C.(536 deg. F)</td>
</tr>
<tr>
<td>Density (g/cm³):</td>
<td>1.1607</td>
</tr>
<tr>
<td>Specific gravity:</td>
<td></td>
</tr>
</tbody>
</table>

Product code: AM125  Product name: GLYCINE, USP
10. STABILITY AND REACTIVITY

Reactivity
Reactive with oxidizing agents

Chemical stability
Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid:

Incompatible Materials:
Strong oxidizing agents

Hazardous decomposition products:

Other Information
Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Principal Routes of Exposure:
Ingestion. Inhalation.

Acute Toxicity

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>LD50/oral/rat</th>
<th>LD50/oral/mouse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycine</td>
<td>56-40-6</td>
<td>7930 mg/kg Oral LD50 Rat</td>
<td>4920 mg/kg</td>
</tr>
</tbody>
</table>

Product code: AM125  Product name: GLYCINE, USP
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50 information = No information available

Product Information

LD50/oral/rat = Value - Acute Toxicity = 7930 mg/kg
LD50/oral/mouse = Value - Acute Tox = 4920 mg/kg
LD50/dermal/rabbit Value - Acute Toxicity = No information available
LD50/dermal/rat VALUE - Acute Tox = No information available

LC50/inhalation/rat VALUE-Vapor = No information available
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: May cause skin irritation.
Eye Contact: May cause eye irritation.
Inhalation May cause irritation of respiratory tract.
Ingestion Low hazard. Large doses may cause nausea and vomiting. It may also affect behavior (muscle weakness, ataxia).
Aspiration hazard No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity No information available.
Sensitization: No information available.
Mutagenic Effects: May affect genetic material
Carcinogenic effects: No information available.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>IARC</th>
<th>ACGIH - Carcinogens</th>
<th>NTP</th>
<th>OSHA HCS - Carcinogens</th>
<th>Australia - Notifiable Carcinogenic Substances</th>
<th>Australia - Prohibited Carcinogenic Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code: AM125</td>
<td>Product name: GLYCINE, USP</td>
<td>Page 6 / 11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Reproductive toxicity  No data is available
Reproductive Effects:  No information available
Developmental Effects:  No information available
Teratogenic Effects:  No information available

Specific Target Organ Toxicity

STOT - single exposure  No information available.
STOT - repeated exposure  No information available.
Target Organs:  No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects:  No data available.

Persistence and degradability:  No information available
Bioaccumulative potential:  No information available.
Mobility in soil  No information available
Other adverse effects  No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:  Waste must be disposed of in accordance with Federal, State and Local regulation.
Contaminated packaging:  Empty containers should be taken for local recycling, recovery or waste disposal

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycine</td>
<td>56-40-6</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

DOT

UN-No:  Not Regulated
Proper Shipping Name:  No information available
Hazard Class:  No information available
Subsidiary Class:  No information available
Packing group:  No information available

Product code: AM125  Product name: GLYCINE, USP
Emergency Response Guide
Number
Marine Pollutant
DOT RQ (lbs):
Special Provisions
Symbol(s):
Description:
No information available
No data available
No information available
No Information available
No information available
No information available

TDG (Canada)
UN-No:
Proper Shipping Name:
Hazard Class
Subsidiary Risk:
Packing Group:
Marine Pollutant
Description:
Not Regulated
No information available
No information available
No information available
No information available
No information available

ADR
UN Number
Proper Shipping Name:
Transport hazard class(es)
Packing group
Subsidiary Risk:
No information available
Not regulated
No information available
No information available
No information available
No information available

IMDG
UN-No:
Proper Shipping Name:
Hazard Class
Subsidiary Risk:
Packing Group:
Marine Pollutant
Not Regulated
No information available
No information available
No information available
No information available
No information available

RID
UN Number
Proper Shipping Name:
Transport hazard class(es)
Subsidiary Risk:
Packing group
Not Regulated
No information available
No information available
No information available
No information available
No information available

ICAO (air)
UN-No:
Proper Shipping Name:
Hazard Class
Subsidiary Risk:
Packing Group:
Not Regulated
No information available
No information available
No information available
No information available
No information available

IATA
UN Number
Proper Shipping Name:
Transport hazard class(es)
Subsidiary Risk:
Packing group
Precautionary Statements - Response
Special Provisions
Not Regulated
No information available
No information available
No information available
No information available
No information available

15. REGULATORY INFORMATION

International Inventories

Product code: AM125
Product name: GLYCINE, USP
<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>U.S. TSCA</th>
<th>KOREA KECL</th>
<th>Philippines (PICCS)</th>
<th>Japan ENCS (9)-77</th>
<th>China IECSC</th>
<th>Australia (AICS)</th>
<th>EINECS-No.</th>
</tr>
</thead>
</table>

### U.S. Regulations

**Glycine**

**FDA - Direct Food Additives**

21 CFR 172.320, 21 CFR 172.812 (hydrated, anhydrous)

**FDA - 21 CFR - Total Food Additives**

170.50, 172.320, 172.812

- List Sourced from EAFUS

**California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.**

**Chemicals Known to the State of California to Cause Cancer:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

**Chemicals Known to the State of California to Cause Reproductive Toxicity:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>Carcinogen</th>
<th>Developmental Toxicity</th>
<th>Male Reproductive Toxicity</th>
<th>Female Reproductive Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycine</td>
<td>56-40-6</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

### CERCLA/SARA

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>CERCLA - Hazardous Substances and their Reportable Quantities</th>
<th>Section 302 Extremely Hazardous Substances and TPQs</th>
<th>Section 302 Extremely Hazardous Substances and RQs</th>
<th>Section 313 - Chemical Category</th>
<th>Section 313 - Reporting de minimis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycine</td>
<td>56-40-6</td>
<td>None</td>
<td>None</td>
<td>None</td>
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<td>None</td>
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### U.S. TSCA

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)</th>
<th>TSCA 8(d) - Health and Safety Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycine</td>
<td>56-40-6</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

### Canada

**WHIMIS 2015 - GHS Classifications**

**WHIMIS 2015 Hazard Classification Information:**

**Component**

Glycine

56-40-6 (100)

**WHIMIS 2015 Hazard Classification**

Combustible Dust - Category 1: May form combustible dust concentrations in air (factors such as combustibility and explosiveness of dusts including composition and shape and size of particles could cause substance to belong to 'Combustible dust' hazard class)

**Canada Hazardous Products Regulation**

This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR
### DSL/NDSL

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
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<th>Canada (NDSL)</th>
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<table>
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<tr>
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<th>Classification</th>
<th>Concentration Limits:</th>
<th>Safety Phrases</th>
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<tbody>
<tr>
<td>Glycine</td>
<td>56-40-6</td>
<td>CEPA Schedule I - Toxic Substances</td>
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<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting</th>
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<tbody>
<tr>
<td>Glycine</td>
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</table>

### EU Classification

**EU GHS - SV - CLP 1272/2008**

<table>
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<tr>
<th>Component</th>
<th>CAS No</th>
<th>EU GHS - SV - CLP (1272/2008)</th>
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</thead>
<tbody>
<tr>
<td>Glycine</td>
<td>56-40-6</td>
<td></td>
</tr>
</tbody>
</table>

**EU - CLP (1272/2008)**

**R-phrase(s)**

- not determined (not applicable)

**S-phrase(s)**

- none

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>Classification</th>
<th>Concentration Limits:</th>
<th>Safety Phrases</th>
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<tbody>
<tr>
<td>Glycine</td>
<td>56-40-6</td>
<td></td>
<td>No information</td>
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</tr>
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</table>

The product is classified in accordance with Annex VI to Directive 67/548/EEC

**Indication of danger:**

- Not dangerous

### 16. OTHER INFORMATION

**Preparation Date:** 6/26/2014

**Revision date:** 5/15/2019

**Prepared by:** Sonia Owen

**Disclaimer:**

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.
End of Safety Data Sheet