according to 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: : 12.28.2014

Glycine Solution, 20% w/v

SECTION 1: Identification of the substance/mixture and of the supplier

Product name:

Glycine Solution, 20% w/v

Manufacturer/Supplier Article number: GL3585SS

Recommended uses of the product and restrictions on use: Laboratory chemicals

Manufacturer Details:

AquaPhoenix Scientific, Inc. 860 Gitts Run Road Hanover, PA 17331 1-717-632-1291

Emergency telephone number:

ChemTel: (24-hour)

+1(800)255-3924 +1(813)248-0585 (International)

SECTION 2: Hazards identification

Classification of the substance or mixture:

Not classified for physical or health hazards under GHS.

Signal word: None

Hazard statements: None

Precautionary statements:

None

Other Non-GHS Classification: None

SECTION 3: Composition/information on ingredients

Ingredients:

Ingredients:				
CAS 56-40-6	Glycine, Reagent Grade	20 %		
CAS 7732-18-5	Deionized Water	80 %		
		Percentages are by weight		

SECTION 4: First aid measures

Description of first aid measures

After inhalation:

Loosen clothing as necessary and position individual in a comfortable position. Move exposed to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen. Do not perform mouth-to-mouth on an unconscious person. Get medical assistance if cough or other symptoms appear.

After skin contact:

Wash hands and exposed skin with soap and plenty of water for 15-20 minutes. Seek medical attention if

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irritation persists or if concerned.

After eye contact:

Protect unexposed eye. Rinse or flush exposed eye gently using water for 15-20 minutes. Remove contact lenses, if present and easy to do, and continue rinsing. Occasionally lift the upper and lower eyelids while rinsing. Immediately get medical assistance.

After swallowing:

Do not induce vomiting. Seek medical attention immediately.

Most important symptoms and effects, both acute and delayed:

Shortness of breath. Irritation. Nausea. Headache.

Indication of any immediate medical attention and special treatment needed:

If necessary use trained response staff or contractor. Physician should treat symptomatically.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing agents:

Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam.

Unsuitable extinguishing agents: None

Special hazards arising from the substance or mixture: None **Advice for firefighters:**

Protective equipment:

Wear protective eyeware, gloves, and clothing. Refer to Section 8.

Additional information (precautions):

Avoid contact with skin, eyes and clothing. Avoid generating dust. May cause skin irritation. May cause eye irritation. May cause gastrointestinal tract irritation with nausea, vomiting, and diarrhea. May cause respiratory tract irritation.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Normal ventilation is adequate.

Environmental precautions:

Prevent from reaching drains, sewer, or waterway.

Methods and material for containment and cleaning up:

Sweep up and containerize for disposal. Avoid generating dust. Always obey local regulations. If necessary use trained response staff or contractor. Provide ventilation. Wear protective eyeware, gloves, and clothing. Store away from incompatible materials. Refer to Section 5. Dispose of empty containers as unused product. Refer to Section 13. Refer to Section 8.

Reference to other sections: None

SECTION 7: Handling and storage

Precautions for safe handling:

Refer to Section 5. Refer to Section 8. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Follow good hygiene procedures when handling chemical materials. Do not eat, drink, smoke, or use personal products when handling chemical substances. Use only in well ventilated areas. Avoid contact with skin, eyes and clothing.

Conditions for safe storage, including any incompatibilities:

Keep container tightly closed in a cool, dry, well-ventilated area. Store away from incompatible materials. Refer

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to Section 5 and 10.

SECTION 8: Exposure controls/personal protection





Control parameters:	56-40-6, Glycine, ACGIH TLV: NA, OSHA PEL: NA.
Appropriate engineering controls:	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Normal ventilation is adequate.
Respiratory protection:	Not required under normal conditions of use. Normal ventilation is adequate.
Protection of skin:	Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.
Eye protection:	Safety glasses with side shields or goggles.
General hygienic measures:	Wash hands before breaks and at the end of work. Wash hands and exposed skin with soap and plenty of water. Perform routine housekeeping to prevent dust generation. Before re-wearing, wash contaminated clothing.

SECTION 9: Physical and chemical properties

Appearance (physical state, color):	Clear, colorless liquid	Explosion limit lower: Explosion limit upper:	Not determined Not determined
Odor:	Odorless	Vapor pressure at 20°C:	Not determined
Odor threshold:	Not determined	Vapor density:	Not determined
pH-value:	Not determined	Relative density:	Approx. 1
Melting/Freezing point:	Approx. 0°C	Solubilities:	Soluble in water.
Boiling point/Boiling range:	Approx. 100C	Partition coefficient (n- octanol/water):	Not determined
Flash point (closed cup):		Auto/Self-ignition temperature:	Not determined
Evaporation rate:	Not determined	Decomposition temperature:	Not determined
Flammability (solid, gaseous):	Not determined	Viscosity:	a. Kinematic: Not determined b. Dynamic: Not determined
Density at 20°C:	Not determined		
Molecular Weight:	75.05 g/mol		

SECTION 10: Stability and reactivity

Reactivity:

None under normal processing.

Chemical stability:

Stable under normal conditions. moisture sensitive.

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Possible hazardous reactions:

None under normal processing.

Conditions to avoid:

Dust generation, excessive heat, moisture, incompatible materials.

Incompatible materials:

Strong oxidizing agents.

Hazardous decomposition products:

Nitrogen oxides. Carbon oxides. Irritating and highly toxic gases or fumes.

SECTION 11: Toxicological information

Acute Toxicity: No additional information. Chronic Toxicity: No additional information. Skin corrosion/irritation: No additional information. Serious eye damage/irritation: No additional information. Respiratory or skin sensitization: No additional information. Carcinogenicity: No additional information.

Germ cell mutagenicity: No additional information. Reproductive Toxicity: No additional information. STOT-single and repeated exposure: No additional information. Additional toxicological information:

No additional information.

SECTION 12: Ecological information

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

SECTION 13: Disposal considerations

Waste disposal recommendations:

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification.

SECTION 14: Transport information

US DOT

UN Number: ADR, ADN, DOT, IMDG, IATA

Not Regulated

Limited Quantity Exception:

None

Non Bulk:

Bulk:

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RQ (if applicable): None Proper shipping Name: Not Regulated. Hazard Class: None Packing Group: Not Regulated. Marine Pollutant (if applicable): No Comments: None

RQ (if applicable): None Proper shipping Name: Not Regulated. Hazard Class: None

Hazard Class: None Packing Group: Not Regulated. Marine Pollutant (if applicable): No Comments: None

SECTION 15: Regulatory information

United States (USA)

SARA Section 311/312 (Specific toxic chemical listings):

None of the ingredients are listed.

SARA Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

RCRA (hazardous waste code):

None of the ingredients are listed.

TSCA (Toxic Substances Control Act) :

All ingredients are listed.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):

None of the ingredients are listed.

Proposition 65 (California):

Chemicals known to cause cancer:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

Canada

Canadian Domestic Substances List (DSL) :

All ingredients are listed.

SECTION 16: Other information

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and

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regulations applicable to this material.

NFPA: 1-0-0

HMIS: 1-0-0 GHS Full Text Phrases: None

Abbreviations and Acronyms:

- IMDG International Maritime Code for Dangerous Goods.
- PNEC. Predicted No-Effect Concentration (REACH).
- CFR Code of Federal Regulations (USA)
- SARA Superfund Amendments and Reauthorization Act (USA).
- RCRA. Resource Conservation and Recovery Act (USA).
- TSCA. Toxic Substances Control Act (USA).
- NPRI National Pollutant Release Inventory (Canada).
- DOT US Department of Transportation.
- IATA International Air Transport Association.
- GHS Globally Harmonized System of Classification and Labelling of Chemicals.
- ACGIH American Conference of Governmental Industrial Hygienists
- CAS Chemical Abstracts Service (division of the American Chemical Society).
- NFPA National Fire Protection Association (USA).
- HMIS Hazardous Materials Identification System (USA).
- WHMIS Workplace Hazardous Materials Information System (Canada).
- DNEL Derived No-Effect Level (REACH).