

GLYCINE

SECTION 1: PRODUCT IDENTIFICATION

Product Name: Glycine
Product Code: TMB 036
CAS#: 70-18-8
Synonym: Aminoethanoic acid
Chemical Name: Not available.
Chemical Formula: C₂H₅NO₂
Formula Weight: 75.07

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Composition:
Name: Glycine
Toxicological Data on Ingredients: Not available.

SECTION 3: HAZARDS IDENTIFICATION

Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.
Potential Acute Health Effects: Not available.
Potential Chronic Health Effects: Not available.
Carcinogenic Effects: Not available.
Mutagenic Effects: Not available.
Teratogenic Effects: Not available.
Developmental Toxicity: Not available.

SECTION 4: FIRST AID MEASURES

Eye Contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
Skin Contact: Wash off immediately with soap and plenty of water. Cover the irritated skin with emollient. Immediate medical attention is required.
Serious Skin Contact: Not available.
Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Serious Inhalation: Not Available.
Ingestion: Do Not induce vomiting unless directed to do so by medical personnel. 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.
Serious Ingestion: Not available.

SECTION 5: FIRE FIGHTING MEASURES

Suitable extinguishing media
Water Foam Carbon dioxide (CO₂) Dry powder
Special hazards arising from the substance or mixture
Carbon oxides



Nitrogen oxides (NOx)

Sulfur oxides

Combustible.

Development of hazardous combustion gases or vapours possible in the event of fire.

Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions

Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling: Not available

Storage conditions:

Tightly closed. Dry.

Storage class:

Storage class (TRGS 510): 11: Combustible Solids

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product.

Respiratory protection

Respiratory protection is not required. If protection from nuisance levels of dusts are desired, use type N95 or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|--------------------------------------|---|--------------------|
| Physical state and appearance | : | Crystalline Powder |
| Odor | : | Not available |
| Color | : | White |
| Molecular Weight | : | Not available |
| pH | : | Not available |
| Boiling Point | : | Not available |
| Melting Point | : | Not available |
| Critical Temperature | : | Not available |
| Specific Gravity | : | Not available |
| Vapor Pressure | : | Not available |
| Vapor Density | : | Not available |



| | | |
|------------------------|---|---------------|
| Volatility | : | Not available |
| Odor Threshold | : | Not available |
| Water/Oil Dist. Coeff. | : | Not available |
| Ionicity (in Water) | : | Not available |
| Dispersion Properties | : | Not available |
| Solubility | : | Not available |

SECTION 10: STABILITY AND REACTIVITY DATA

Stability: The product is chemically stable under standard ambient conditions (room temperature).

Instability Temperature: Not available

Conditions of Instability: Not available

Incompatibility with various substances: Strong oxidizing agents not available

Special Remarks on Corrosivity: Non-corrosive.

Special Remarks on Reactivity: Not available

Possibility of hazardous reactions: Violent reactions possible with: Strong oxidizing agents Bases

Hazardous decomposition products: In case of fire.

SECTION 11: TOXICOLOGICAL INFORMATION.

Acute Toxicity:

Oral: No data available

Inhalation: No data available

Dermal: No data available

Inhalation: No data available

Dermal: No data available

Routes of Entry: No data available

Toxicity to Animals:

LD50 Oral - Rat - 7.930 mg/kg

Chronic Effects on Humans: Not available

Other Toxic Effects on Humans: Not available

Special Remarks on Toxicity to Animals: Not available

Special Remarks on other Toxic Effects on Humans: Not available

Potential Health Effects:

Germ cell mutagenicity

Test Type: In vitro mammalian cell gene mutation test

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

Toxicity to fish static test LC50 - *Oryzias latipes* (Orange-red killifish) - > 1.000 mg/l - 96 h

Toxicity to daphnia semi-static test EC50 - *Daphnia magna* (Water flea) - > 220 mg/l - 48 h
invertebrates

Toxicity to algae static test EC50 - *Pseudokirchneriella subcapitata* (green algae) - > 1.0 mg/l - 72 h

Toxicity to bacteria static test NOEC - activated sludge - >= 100 mg/l - 14 d

BOD and COD: Not available

Products of Biodegradation:

Biodegradability aerobic - Exposure time 14 d

Result: 76 - 82 % - Readily biodegradable.

Toxicity of the Products of Biodegradation: Not available

Special Remarks on the Products of Biodegradation: Not Available

SECTION 13: DISPOSAL CONSIDERATIONS



Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

SECTION 14: TRANSPORT INFORMATION

UN number:

ADR/RID:

IMDG:

IATA:

UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

Transport hazard class (es):

ADR/RID:

IMDG:

IATA:

Packaging group:

ADR/RID:

IMDG:

IATA:

Environmental hazards:

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

SECTION 15: REGULATORY INFORMATION

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16: OTHER INFORMATION

References: Full text of H AND R-Statements: Not available.

Other Special Considerations: Not available

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