



# Glycine (aminoacetic acid)

## Safety Data Sheet

Version 1.1

Revision date 01/09/2012/LM-IA

### SECTION 1. Product and company identification

Chemical type	: Substance
Substance name	: Glycine (aminoacetic acid)
CAS No.	: 56-40-6
Product code	: RC-055
Formula	: C <sub>2</sub> H <sub>5</sub> NO <sub>2</sub>
Synonyms	: 2-aminoacetic acid / acetic acid, amino- / aciport / aminoethanoic acid / GLY / glycine / glycoll / glycolixir / glycosthene / gyn-hydralin / hampshire glycine / l-glycine / padil
Company identification	: G-Biosciences/ Geno Technology, Inc. 9800 Page Avenue St. Louis, MO 63132-1429, USA Tel.1-800-628-7730 <a href="http://www.GBiosciences.com">http://www.GBiosciences.com</a>
Emergency number	: Chemtrec <b>1-800-424-9300</b> (USA/Canada), <b>+1-703-527-3887</b> (Intl)

### SECTION: 2. Hazards identification

#### 2.1. Emergency Overview

Physical state	: Solid
Appearance	: Crystalline solid. Powder
Colour	: White
Odour	: Odourless

#### Glycine (aminoacetic acid)(56-40-6)

#### 2.2. OSHA Regulatory Status

No additional information available

#### 2.3. Potential health effects

Symptoms/injuries after inhalation	: AFTER INHALATION OF DUST: Coughing.
Symptoms/injuries after skin contact	: Slight irritation.
Symptoms/injuries after eye contact	: Slight irritation.
Symptoms/injuries after ingestion	: AFTER ABSORPTION OF HIGH QUANTITIES: Nausea.

#### 2.4. Potential environmental effects

No additional information available

### SECTION: 3. Composition/information on ingredients

Name	CAS No.	%
Glycine (aminoacetic acid)	56-40-6	100

#### 4.1. First aid procedures

First-aid measures general	: If you feel unwell, seek medical advice.
First-aid measures after inhalation	: Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
First-aid measures after skin contact	: Rinse with water. Soap may be used. Take victim to a doctor if irritation persists.
First-aid measures after eye contact	: Rinse with water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.
First-aid measures after ingestion	: Rinse mouth with water. Call Poison Information Centre ( <a href="http://www.big.be/antigif.htm">www.big.be/antigif.htm</a> ). Consult a doctor/medical service if you feel unwell.

#### 4.2. Note to physicians

No additional information available

### SECTION: 5. Firefighting measures

#### 5.1. Flammable properties

Fire hazard	: DIRECT FIRE HAZARD. Literature reports direct fire hazard. In finely divided state: increased fire hazard. INDIRECT FIRE HAZARD. Heating increases the fire hazard.
Explosion hazard	: DIRECT EXPLOSION HAZARD. Its dust is explosive with air. INDIRECT EXPLOSION HAZARD. Dust cloud can be ignited by a spark.
Reactivity	: On burning: release of toxic and corrosive gases/vapours (nitrous vapours, ammonia, carbon monoxide - carbon dioxide). Reacts with chlorine bleach: release of (highly) toxic gases/vapours. Reacts with (strong) oxidizers. Reacts with (strong) bases.

# Glycine (aminoacetic acid)

## Safety Data Sheet

### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Polyvalent foam. ABC powder. Carbon dioxide.

### 5.3. Protection for firefighters

Firefighting instructions : Dilute toxic gases with water spray.

Protection during firefighting : Heat/fire exposure: compressed air/oxygen apparatus.

## SECTION: 6. Accidental release measures

### 6.1. Personal precautions

#### 6.1.1. For non-emergency personnel

Protective equipment : Gloves. Protective clothing. Dust cloud production: compressed air/oxygen apparatus. See "Material-Handling" to select protective clothing.

Emergency procedures : Mark the danger area. Prevent dust cloud formation, e.g. by wetting. No naked flames. Wash contaminated clothes. In case of hazardous reactions: keep upwind. In case of reactivity hazard: consider evacuation.

#### 6.1.2. For emergency responders

No additional information available

### 6.2. Environmental precautions

No additional information available

### 6.3. Methods for containment

For containment : Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray. Powdered form: no compressed air for pumping over spills.

### 6.4. Methods for clean up

Methods for cleaning up : Prevent dust cloud formation. Scoop solid spill into closing containers. See "Material-handling" for suitable container materials. Powdered: do not use compressed air for pumping over spills. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

### 6.5. Other information

No additional information available

### 6.6. Spill or leak statements by type of chemical

No additional information available

## SECTION: 7. Handling and storage

### 7.1. Handling

Precautions for safe handling : Comply with the legal requirements. Powdered form: no compressed air for pumping over. Avoid raising dust. Keep away from naked flames/heat. Finely divided: spark- and explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Observe normal hygiene standards. Keep container tightly closed. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

### 7.2. Storage

Storage temperature : 0 - 40 °C

Heat-ignition : KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.

Prohibitions on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents. (strong) bases. (strong) acids.

Storage area : Store in a cool area. Protect against frost. Store in a dry area. Meet the legal requirements.

Special rules on packaging : SPECIAL REQUIREMENTS: closing. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.

Packaging materials : SUITABLE MATERIAL: synthetic material.

## SECTION: 8. Exposure controls/personal protection

### 8.1. Exposure guidelines

No additional information available

### 8.2. Engineering controls

No additional information available

### 8.3. Personal protective equipment (PPE)

Materials for protective clothing : GIVE GOOD RESISTANCE: nitrile rubber.

Hand protection : Gloves.

Eye protection : Safety glasses. In case of dust production: protective goggles.

Skin and body protection : Protective clothing.

Respiratory protection : Dust production: dust mask with filter type P1.

# Glycine (aminoacetic acid)

## Safety Data Sheet

### SECTION: 9. Physical and chemical properties

Physical state	: Solid
Appearance	: Crystalline solid. Powder.
Molecular mass	: 75.07 g/mol
Colour	: White.
Odour	: Odourless.
Odour threshold	: No data available
pH	: 5.9 - 6.4
pH solution	: 5 %
Melting point	: 232 °C
Solidification point	: No data available
Boiling point	: Not applicable
Flash point	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosive limits	: -100 g/m <sup>3</sup>
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 1.6
Density	: 1595 kg/m <sup>3</sup>
Solubility	: Soluble in water. Water: 23 g/100ml Ethanol: 0.06 g/100ml
Log Pow	: -3.21 (experimental)
Self ignition temperature	: No data available
Decomposition temperature	: > 232 °C
Viscosity	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
VOC content	: 0 %
Other properties	: Substance has acid reaction.

### SECTION: 10. Stability and reactivity

#### 10.1. Chemical stability

On burning: release of toxic and corrosive gases/vapours (nitrous vapours, ammonia, carbon monoxide - carbon dioxide). Reacts with chlorine bleach: release of (highly) toxic gases/vapours. Reacts with (strong) oxidizers. Reacts with (strong) bases.

Stable under normal conditions.

#### 10.2. Conditions to avoid

No additional information available

#### 10.3. Incompatible materials

No additional information available

#### 10.4. Hazardous decomposition products

No additional information available

#### 10.5. Possibility of hazardous reactions

No additional information available

### SECTION: 11. Toxicological information

#### Information on toxicological effects

Acute toxicity : Not classified

Glycine (aminoacetic acid) (56-40-6)	
LD50 oral rat	7930 mg/kg
Skin corrosion/irritation	: Not classified pH: 5.9 - 6.4
Serious eye damage/irritation	: Not classified pH: 5.9 - 6.4
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

# Glycine (aminoacetic acid)

## Safety Data Sheet

Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

### SECTION: 12. Ecological information

#### 12.1 Ecotoxicity

Ecology - air : Not dangerous for the ozone layer (Council Regulation (EC) no 1005/2009). Germany: TA-Luft Klasse 5.2.5/I.

Glycine (aminoacetic acid)(56-40-6)	
LC50 fishes 1	> 5 ppm (24 Hours; LEPOMIS MACROCHIRUS)
LC50 fishes 2	> 5 ppm (24 Hours; CARASSIUS AURATUS)

#### 12.2. Persistence and degradability

Glycine (aminoacetic acid)(56-40-6)	
Persistence and degradability	Readily biodegradable in water. test: 0%, 28d, mitil,OECD 301C.
BOD (% of ThOD)	86 % ThOD

#### 12.3. Bioaccumulation/Accumulation

Glycine (aminoacetic acid)(56-40-6)	
Log Pow	-3.21 (experimental)
Bioaccumulative potential	Bioaccumulation: not applicable.

#### 12.4. Mobility in environmental media

No additional information available

#### 12.6. Other adverse effects

No additional information available

### SECTION: 13. Disposal considerations

#### 13.1. Waste treatment methods

Waste disposal recommendations : Remove waste in accordance with local and/or national regulations. Recycle/reuse. Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber with energy recovery. May be discharged to wastewater treatment installation.

Additional information : LWCA (the Netherlands): KGA category 03.

### SECTION: 14. Transport information

#### 14.1. Basic shipping description

No additional information available

#### 14.2 Additional information

Other information : No supplementary information available.

State during transport (ADR-RID) : Rail and road transport: not subject to ADR-RID.

#### Overland transport

No additional information available

#### Transport by sea

No additional information available

#### Air transport

No additional information available

### SECTION: 15. Regulatory information

#### 15.1. US Federal regulations

No additional information available

#### 15.2. International regulations

##### CANADA

No additional information available

##### EU-Regulations

No additional information available

# Glycine (aminoacetic acid)

## Safety Data Sheet

### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

### Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

### 15.2.2. National regulations

No additional information available

### 15.3. US State regulations

No additional information available

## SECTION: 16. Other information

NFPA health hazard

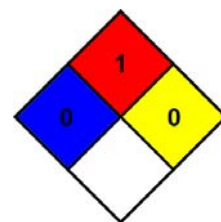
: 0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.

NFPA fire hazard

: 1 - Must be preheated before ignition can occur.

NFPA reactivity

: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



### HMIS III Rating

No additional information available

SDS US (ANSI) GBiosciences