

MATERIAL SAFETY DATA SHEET

**VIVANTIS TECHNOLOGIES SDN BHD
REVONGEN CORPORATION CENTER**

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SECTION 1: CHEMICAL IDENTIFICATION

Catalogue Number: PR0608-1kg

Product Name: Glycine

Intended Use:

For research use only. Not for use in diagnostic procedures.

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SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	EC No.
Glycine	56-40-6	200-272-2

Chemical formula: $C_2H_5NO_2$

Synonym: Aminoacetic acid; Glycolixir; Hampshire glycine

SECTION 3: HAZARDS IDENTIFICATION**GHS Classification**

No known hazards based on information supplied.

In case of eye contact, no information regarding eye irritation and other potential effects.

In case of skin contact, low hazard for usual industrial handling. May be absorbed through the skin.

In case of inhalation, low hazard for usual industrial handling.

In case of ingestion, low hazard for usual industrial handling; large amounts may cause gastrointestinal irritation.

There is no information found for chronic contact.

SECTION 4: FIRST-AID MEASURES

In case of inhalation, remove to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical assistance if there are problems.

In case of skin contact, wash with plenty of soap and excess water for up to 15 minutes while removing contaminated clothing and shoes. Seek medical assistance if irritation is persistent.

In case of eye contact, wash copiously with water for up to 15 minutes, occasionally lifting the upper and lower eyelids. Seek medical assistance if there is persistent irritation.

In case of ingestion, wash out mouth with water provided the person is conscious. Seek medical assistance if there is abdominal discomfort.

SECTION 5: FIRE FIGHTING MEASURES

Not flammable.

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Use water spray, regular foam, dry chemical or carbon dioxide.

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH and full protective gear.

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Hazardous decomposition products formed under fire condition: Nitrogen oxides, carbon oxides, ammonia

Explosion data – sensitivity to mechanical impact: Not sensitive.

Explosion data – sensitivity to static discharge: Not sensitive.

SECTION 6: ACCIDENTAL RELEASE MEASURES

For personal protection, use personal protective equipment. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.

For environmental precautions, prevent further leakage or spillage if safe to do so.

For cleaning up, pick up and arrange disposal to properly labeled containers.

SECTION 7: HANDLING AND STORAGE

Handle in accordance with good industrial hygiene and safety practice.

Keep containers tightly closed in a dry, cool, well-ventilated place.

Incompatible with strong oxidizing agents.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Skin and body protection Wear protective gloves and clothing.

Eye/face protection Use face shield. Tightly fitting safety goggles.

Use engineering measures such as showers, eyewash stations and ventilation system.

Handle in accordance with good industrial hygiene and safety practice.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White
Physical state:	Crystalline powder
Odor:	No information available
pH:	No data available
Boiling point:	No information available
Initial boiling point:	No information available
Freezing/melting point:	No information available
Flash point:	Not determined
Auto-ignition temperature:	No data available
Decomposition temperature:	No information available
Explosion limits:	No data available
Solubility in water:	No information available
Specific gravity/density:	No information available
Viscosity:	No information available

SECTION 10: STABILITY AND REACTIVITY

Stable under normal temperatures and pressures.

Materials to avoid:	Strong oxidizing agents
Hazardous decomposition products:	Nitrogen oxides, carbon oxides, ammonia.
Hazardous polymerization:	Do not occur
Conditions to be avoided:	None

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50: Rat - 7930mg/kg

Chronic toxicity

No known effect based on information supplied.

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SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

LC50: Fish – goldfish – >5 ppm – 24hrs
 Fish – bluegill/sunfish – >5 ppm – 24hrs
 Fish – trout – >5 ppm – 24hrs

The product is chemical identical with the natural amino acid glycine and can therefore be degraded microbiologically. Biodegradable.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose waste material in accordance with all federal, state and local environmental regulation. For contaminated packing too dispose in accordance with all federal, state and local environmental regulation.
 Observe all federal, state and local environmental regulations.

SECTION 14: TRANSPORT INFORMATION

IATA

Not regulated.

DOT

Not regulated.

SECTION 15: REGULATORY INFORMATION

International inventories

TSCA	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

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U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulation, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following substances which are listed hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

Chemical name:	Glycine
CAS No.:	54-40-6
Weight:	95-100%
VOC Chemicals:	Group II

U.S. State Regulations

California Proposition 65

Not regulated.

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SECTION 16: OTHER INFORMATION

The information contained in this MSDS relates only to the material(s) designed and does not relate to use(s) in combination with any other material, process(es) and /or chemical reaction(s). Vivantis Technologies Sdn. Bhd. provides this information in good faith, from sources believed to be accurate; however, Vivantis assumes no liability for its accuracy or completeness, and thus shall not be held liable for any damage resulting from handling or from contact with the above product.

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