

Safety Data Sheet



1. Identification

Supplier : National Institute of Advanced Industrial Science and Technology (AIST)

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Office in Charge : Reference Materials Office, Center for Quality Management of Metrology, National Metrology Institute of Japan

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Emergency : Same as above

Contact

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ID Number : 6022002

Product identifier : Certified reference material: NMIJ CRM 6022-b Glycine

Recommended : This CRM is intended for the calibration of analytical instruments, preparation of standard solutions, and validation of analytical methods and instruments used for amino acid analysis. It must not be used for purposes other than testing and research.

Use of the Chemical and Restriction on Use : This CRM is a certified reference material as defined in the Japanese Industrial Standard (JIS Q 0030).

2. Hazards Identification

GHS classification : Unclassifiable

GHS label elements : -

Signal word : -

Hazard statements : -

Precautionary statements : [Prevention]

Wear personal protective equipment.

[Response]

If the product comes into contact with the eyes, rinse thoroughly with water for several minutes. Next, if you are wearing contact lenses and can remove them easily, please do so. Continue with the cleaning process thereafter. If eye irritation persists, seek medical advice.

[Storage]

Store in a clean desiccator, protected from light, at room temperature (approximately 15 °C to 25 °C).

[Disposal]

Compliance with relevant legislation and local authority by-laws is required.

Entrust disposal to a specialist waste disposal contractor licensed by the prefectural governor.

Any hazards or risks not listed above are either excluded from classification or cannot be classified.

Other hazards not otherwise classified : It is virtually non-toxic, but is harmful if inhaled or ingested in large quantities. It causes irritation to the eyes, throat and mucous membranes.

3 . Composition / Information on Ingredients

Substance or mixture : Substance
 Chemical identity : Glycine
 Common name / synonyms : Aminoacetic acid
 CAS number : 56-40-6
 Concentration (%) : 99.9 %
 Chemical formula or structural formula : $\text{H}_2\text{NCH}_2\text{COOH}$
 Molecular weight : 75.07
 Reference Number in Gazetted List in Japan : Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.: (9)-77
 Reference Number in Gazetted List in Japan : Industrial Safety and Health Act: Publication

4 . First-Aid Measures

Inhalation : Move the person to a place with fresh air, and ensure they rest and stay warm. Seek medical advice.
 Skin contact : Rinse thoroughly with clean water. Remove any contaminated clothing or footwear, and seek medical advice if skin irritation or a rash develops.
 Eye contact : Rinse thoroughly with water for a few minutes. Next, if you are wearing contact lenses and can remove them easily, please do so. Continue with the cleaning process thereafter. If eye irritation persists, seek medical advice and treatment.
 Ingestion : Rinse your mouth thoroughly with water. Contact a doctor.
 Precautions necessary for the protection of first responders : Rescuers must wear personal protective equipment.

5 . Fire-Fighting Measures

Suitable extinguishing media : This reference material is not combustible. Fire-retardant agents suitable for surrounding fires.
 Unsuitable extinguishing : No data

media

Specific hazards arising from the chemical : In the event of a fire, irritating or toxic fumes (or gases) may be released.

Specific firefighting methods : Cut off the source of the fire and extinguish it using a fire-extinguishing agent. Move any portable containers to a safe place as soon as possible. If it cannot be moved, cool the surrounding area by spraying water.

Special protective equipment and precautions for firefighters : Firefighting operations should be carried out from upwind to avoid inhaling harmful gases. Use protective equipment such as fire-resistant clothing, heat-resistant clothing, protective suits, self-contained breathing apparatus, recirculating oxygen breathing apparatus, rubber gloves and rubber boots.

6 . Accidental Release Measures

Personal precautions, protective equipment, emergency procedures : Wear appropriate protective equipment to prevent contamination of the skin, eyes and personal clothing. When working indoors, ensure the area is well ventilated until the process is complete. When carrying out work, wear appropriate protective equipment to prevent splashes and the like from coming into contact with the skin, and to avoid inhaling dust or gases.

Environmental precautions : Take care to ensure that any spilled product is not discharged into rivers or similar watercourses, so as to avoid any impact on the environment. Care must be taken to ensure that contaminated effluent is not discharged into the environment without being properly treated.

Methods and materials for containment and cleaning up : Any spilled product should be absorbed using rags, cloths or earth and sand, and collected in an empty container; the area should then be washed down with plenty of water.

Secondary Disaster Prevention Measures : Restrict access to the area around the leak by, for example, stretching out a rope to prevent unauthorised persons from entering. Carry out the work from upwind and ensure that people downwind are evacuated.

7 . Handling and Storage

Handling

Technical countermeasures (Local exhaust ventilation, general ventilation, etc.) : Handle in a well-ventilated area.
Facilities for washing the eyes and body in an emergency must be installed near the area where the substance is handled.
Do not subject the container to rough handling, such as tipping it over, dropping it, dragging it or subjecting it to impact.
Take care to prevent leaks, spills and splashes, and avoid generating steam unnecessarily.

	Take care not to inhale any vapors (or dust) that may be released. When handling the product outdoors, carry out the work upwind wherever possible. Seal the container tightly after each use. Contaminated workwear must not be taken out of the workplace. If handling this substance, do so in an area equipped with local exhaust ventilation.
Safety Handling	: Handle with care to prevent the unnecessary generation of aerosols and dust.
Precautions	
Avoidance of contact	: See '10. Stability and Reactivity'.
Sanitation	: Handle in accordance with occupational health and safety standards.
Measures	You must not eat, drink or smoke anywhere other than in the designated areas. After handling, wash your hands, face and so on thoroughly, and gargle. Gloves and other contaminated protective equipment must not be brought into the rest area. Unauthorized persons are prohibited from entering the designated area. Wear appropriate protective equipment to avoid inhalation or contact with the eyes, skin or clothing.
Storage	
Safe storage conditions	: Store in a clean desiccator at room temperature (approximately 15 °C to 25 °C), protected from light.
Safe Container and Packaging Materials	: Polyethylene, polypropylene

※For appropriate storage conditions and usage precautions as a reference material, refer to the certificate.

8 . Exposure Controls / Personal Protection

Management concentration

Not set

Permissible Concentration (Glycine)

ACGIH TLV-TWA : No data

Recommended Values of : No data

the Japan Society for

Occupational Health

OSHA PEL TWA : No data

Facility Countermeasures

Ventilation and Exhaust : Where dust is generated, the source must be sealed off and a local exhaust ventilation system installed.

	Facilities for eye and body washing must be provided near the work area, and the location of these facilities must be clearly indicated.
Safety Management and Gas Detection	: —
Storage Precautions	: Sealed.
Protective equipment	
Respiratory protective equipment	: Dust mask
Hand protection	: Protective gloves
Eye and face protection	: Safety spectacles with side shields (goggles where required)
Skin and Body	: Long-sleeved protective clothing
Protective Equipment	

9. Physical and Chemical Properties

• Physical state	: Solid (powder)
• Color	: White
• Odor	: No data
• Melting point/Freezing point	: 232 °C to 236 °C (decomposition point)
• Boiling point or initial boiling point and boiling range	: No data
• Flammability	: No data
• Lower and Upper Explosive Limit/Flammable Limit	: No data
• Flash point	: No data
• Auto-ignition temperature	: No data
• Decomposition temperature	: No data
• pH	: No data
• Kinematic viscosity	: No data
• Solubility	: Easily soluble in water (25 g/100 ml at 25 °C) Slightly soluble in alcohol; sparingly soluble in ether.
• Partition coefficient (n-octanol/water) (log value)	: No data
• Vapor pressure	: No data
• Density and/or relative density	: No data
• Relative vapor density	: No data
• Particle characteristics	: No data

10. Stability and Reactivity

Reactivity	: No data
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Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	: No data
Conditions to avoid	: Sunlight, heat
Incompatible materials	: No data
Hazardous decomposition products	: Carbon monoxide, nitrogen oxides (NOx)

11. Toxicological Information

Acute toxicity	: Oral, rat LD ₅₀ : 7930 mg/kg Oral, mouse LD ₅₀ : 4920 mg/kg Subcutaneous, rat LD ₅₀ : 5200 mg/kg Intraperitoneal, mouse LD ₅₀ : 4450 mg/kg
Skin Corrosion/Irritation	: No data
Serious eye damage / Irritation	: No data
Respiratory or skin sensitization	: No data
Germ cell mutagenicity	: No data
Carcinogenicity	: No data
Reproductive toxicity	: No data
STOT - Single Exposure	: No data
STOT - Repeated Exposure	: No data
Aspiration hazard	: No data

12. Ecological Information

Toxicity	:	No data
Persistence and degradability	:	Degradation: 79 % by BOD Degradation: 98 % by TOC
Bioaccumulative potential	:	No data
Mobility in soil	:	No data
Other adverse effects	:	No data

13. Disposal Considerations

Disposal methods : Incineration
Incinerate in an incinerator equipped with a scrubber.
Dispose of the contents in accordance with relevant laws and regulations and local ordinances. If disposal by the method

described above is not possible, entrust disposal to a professional waste disposal contractor licensed by the prefectural governor. When outsourcing waste treatment, inform the waste disposal contractor of the hazards and harmful properties of the material before entrusting the treatment.

Contaminated containers and packaging : When disposing of empty containers, ensure that the contents have been completely removed before disposal.

14. Transport Information

International Regulations

UN number : None

UN proper shipping name : -

Transport hazard class(es) : -

Packing group : -

Marine pollutants : None

Special precautions for user : Avoid direct sunlight, take great care to prevent leakage caused by dropping or overturning, and take every precaution against fire; handle with care.

Domestic regulations

Land transport : In accordance with the Fire Services Act, the Poisons and Deleterious Substances Control Act and the High-Pressure Gas Safety Act

Maritime transport : In accordance with the Ship Safety Act and the Port Regulations Act

Air transport : In accordance with the Civil Aviation Act

15. Regulatory Information

No applicable legislation

16. Other Information

Other

The information provided is based on currently available materials and data and does not cover all information. Please note that these precautions apply to normal handling. For special handling, implement safety measures appropriate for the intended use and method before use.

The information provided herein is for informational purposes only and does not constitute any warranty regarding its use.
