



Shandong Yangcheng Biotechnology Co. Ltd.

No.1666, Donghuan Rd, Juancheng County, Shandong Province, China

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Material Safety Data Sheet

Gamma aminobutyric acid

SECTION 1 - CHEMICAL PRODUCT

1.1 Chemical Product

MSDS Name: 4-Aminobutyric acid Material Safety Data Sheet

Synonyms: 4-Aminobutanoic acid; Piperidinic acid; GABA; Gamarex; Gammalo

CAS No.: 56-12-2

1.2 Details of the supplier of the safety data sheet

Company information: Shandong Yangcheng Biotech Co., Ltd

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SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS

CAS#	Chemical Name	content	EINECS#
56-12-2	4-Aminobutyric acid	---	200-258-6

Hazard Symbols: None Listed.

Risk Phrases: None Listed.

Section 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Not available.

Potential Health Effects

Eye: May cause eye irritation.

Skin: May cause skin irritation.

Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

Inhalation: May cause respiratory tract irritation.

Chronic: No information found.

Section 4 - FIRST AID MEASURES

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.



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Skin: Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportable.

Section 5 - FIRE FIGHTING MEASURES

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media:

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

Section 6 - ACCIDENTAL RELEASE MEASURES

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal.

Section 7 - HANDLING and STORAGE

Handling: Wash thoroughly after handling. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

Storage: Store in a cool, dry place. Keep container closed when not in use.

Section 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits CAS# 56-12-2

Personal Protective Equipment Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use



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a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Color: White;

Odor: Odorless;

pH: Not available;

Vapor Pressure: Not available.

Viscosity: Not available;

Boiling Point: 760.00mm Hg;

Freezing/Melting Point: 195 deg C

Autoignition Temperature: Not available.

Flash Point: 195 deg C (383.00 deg F)

Explosion Limits, lower: Not available;

Explosion Limits, upper: Not available.

Decomposition Temperature: 195 deg C;

Solubility in water: freely soluble in water

Specific Gravity/Density:

Molecular Formula: $\text{H}_2\text{N}(\text{CH}_2)_3\text{CO}_2\text{H}$

Molecular Weight: 103.12

Section 10 - STABILITY AND REACTIVITY

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials.

Incompatibilities with Other Materials: Strong oxidizing agents.

Hazardous Decomposition Products: Nitrogen oxides, carbon monoxide, carbon dioxide.

Hazardous Polymerization: Has not been reported.

Section 11 - TOXICOLOGICAL INFORMATION

RTECS#:

CAS# 56-12-2: ES6300000 LD50/LC50:

CAS# 56-12-2: Oral, mouse: LD50 = 12680 mg/kg.

Carcinogenicity: 4-Aminobutyric acid - Not listed by ACGIH, IARC, or NTP.

Other: See actual entry in RTECS for complete information.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity: N/A

Persistence and degradation: N/A



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Potential bioaccumulation: N/A

The migration of in soil: N/A

The evaluation results of vPvB and PBT: N/A

Other adverse effects: N/A

Section 13 - DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - TRANSPORT INFORMATION

IATA: Not regulated as a hazardous material.

IMO: Not regulated as a hazardous material.

RID/ADR: Not regulated as a hazardous material.

Section 15 - REGULATORY INFORMATION

Component 4-Aminobutyric acid CAS#: 56-12-2

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available.

Risk Phrases:

Safety Phrases: S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 56-12-2: No information available.

Canada

CAS# 56-12-2 is listed on Canada's DSL List.

CAS# 56-12-2 is not listed on Canada's Ingredient Disclosure List.

US FEDERAL

TSCA: CAS# 56-12-2 is listed on the TSCA inventory.

SECTION 16 - ADDITIONAL INFORMATION

The information above is believed to be accurate and represents the best information currently available to us.

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