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Nicotinoyl-GABA

CAS: 34562-97-5
Formula: C10H12N2O3

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Section 1 — Product and Company Identification

Product Name	Nicotinoyl-GABA
Synonyms	34562-97-5; Nicotinoyl-GABA; GABA-NG
CAS Number	34562-97-5
Molecular Formula	C10H12N2O3
IUPAC Name	4-(pyridine-3-carbonylamino)butanoic acid
Identified Uses	Research laboratory chemical for in vitro scientific research and development use only.
Restriction on Use	Not for human or veterinary use. Not for food, drug, cosmetic, household, agricultural, clinical, therapeutic, or diagnostic applications.

Manufacturer / Supplier

Company	Ruo.bio
Address	30 N Gould St, Sheridan, WY 82801, US
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Emergency Phone	+1(804)636-6879 - Monday-Friday: 9:00 AM - 5:00 PM Pacific

Section 2 — Hazard Identification

Classification of the substance

Classified under GHS Rev.8 / OSHA HazCom 2012 — see hazard statements below.

Classification has been conducted in accordance with 29 CFR 1910.1200 (OSHA HazCom 2012) and GHS Rev.8 using all available data and scientifically valid weight-of-evidence approaches (GHS Rev.8 Chapter 1.3.2.4), including read-across from chemical class and structural considerations where substance-specific study data is not available.

Signal Word: **WARNING**

GHS Pictograms:

GHS07

Hazard Statements

- H302: Harmful if swallowed [Warning Acute toxicity, oral]
- H315: Causes skin irritation [Warning Skin corrosion/irritation]
- H319: Causes serious eye irritation [Warning Serious eye damage/eye irritation]
- H335: May cause respiratory irritation [Warning Specific target organ toxicity, single exposure; Respiratory tract irritation]

Precautionary Statements

- P261
- P264
- P264+P265
- P270
- P271
- P280
- P301+P317
- P302+P352
- P304+P340
- P305+P351+P338
- P319
- P321
- P330
- P332+P317
- P337+P317
- P362+P364
- P403+P233
- P405
- P501

Hazards Not Otherwise Classified (HNOC)

None known based on available data and weight-of-evidence assessment. The toxicological properties of this substance have not been fully characterized; handle as a potentially bioactive substance of unknown toxicity.

Section 3 — Composition / Information on Ingredients

Single-substance product. Chemical identity:

Ingredient	CAS Number	Mol. Formula	Mol. Weight	Concentration
Nicotinoyl-GABA	34562-97-5	C10H12N2O3	208.21 g/mol	>98% (research grade)

Impurities

No hazardous impurities known to be present above the GHS classification thresholds specified in 29 CFR 1910.1200 Appendix A. Residual synthesis reagents, solvents, and counter-ions may be present at levels consistent with

research-grade (>98% purity) material. Balance: non-hazardous impurities. Refer to the accompanying Certificate of Analysis (CoA) for the lot-specific impurity profile.

Section 4 — First Aid Measures

Eye Contact
Immediately flush eyes with large amounts of water for at least 15 minutes, lifting the upper and lower eyelids. Remove contact lenses if present and easy to do. Seek immediate medical attention.

Skin Contact
Remove contaminated clothing immediately. Wash affected area with soap and water for at least 15 minutes. Seek medical attention if irritation or symptoms develop.

Inhalation
Move affected person to fresh air. If symptoms develop, seek medical advice.

Ingestion
Do NOT induce vomiting. Rinse mouth with water. Seek immediate medical attention. If conscious, give 1-2 glasses of water.

Note to Physician
Treat symptomatically. No specific antidote known.

Section 5 — Fire Fighting Measures

Flash Point: *Not determined*

Suitable Extinguishing Media
Use extinguishing media appropriate to the surrounding fire conditions. Carbon dioxide (CO2), dry chemical powder, foam, or water spray.

Special Hazards
May produce toxic gases upon combustion. Carbon monoxide and other combustion products may be generated.

Protective Equipment for Firefighters
Wear self-contained breathing apparatus (SCBA) and full protective gear. Do not enter fire area without proper protective equipment.

Section 6 — Accidental Release Measures

Personal Precautions
Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Use personal protective equipment as described in Section 8.

Environmental Precautions
Prevent further leakage or spillage if safe to do so. Do not allow the product to enter drains, sewers, or waterways.

Containment and Cleanup
Sweep up and shovel. Keep in suitable, closed containers for disposal. Avoid raising dust. Clean contaminated surface thoroughly. Dispose of waste in accordance with local regulations (see Section 13).

Section 7 — Handling and Storage

Handling Precautions

Handle in accordance with good industrial hygiene and safety practice as outlined in OSHA 29 CFR 1910.1200 and 29 CFR 1910.132-138. Because comprehensive toxicological data for Picamilon (CAS 34562-97-5) are limited, treat it as a potentially bioactive compound of unknown toxicity and minimize all routes of exposure (inhalation of dust, skin/eye contact, and ingestion). Use only in a well-ventilated area; where dust or aerosol generation is possible (e.g., weighing, transferring, milling), work inside a certified chemical fume hood, ventilated balance enclosure, or local exhaust ventilation, or use NIOSH-approved respiratory protection as specified in Section 8. Wear appropriate personal protective equipment, including chemical-resistant gloves, safety eyewear meeting ANSI Z87.1, and a laboratory coat. Avoid generation and inhalation of dust; do not eat, drink, smoke, or apply cosmetics in areas where the substance is handled. Wash hands and exposed skin thoroughly after handling and before breaks. Use grounded equipment when handling dry powder to prevent static accumulation, and avoid contact with sources of ignition, as fine organic powders can present a combustible-dust hazard. Keep containers tightly closed when not in use and clearly labeled in compliance with the OSHA Hazard Communication Standard (29 CFR 1910.1200(f)). Clean up any spilled material promptly using methods that avoid dust generation (see Section 6).

Storage Conditions

Store in tightly closed, original containers in a cool, dry, well-ventilated area away from direct sunlight, heat, and sources of ignition. Protect from moisture and humidity, as the amide/carboxylic acid functionality may be susceptible to hydrolysis under humid conditions. Recommended storage temperature should follow the manufacturer's container label; in the absence of specific guidance, ambient storage not exceeding 25 °C is appropriate for routine quantities, with refrigeration (2–8 °C) or freezer storage (−20 °C, desiccated, protected from light) acceptable for long-term retention of analytical or research-grade material. Keep containers tightly sealed and segregated from incompatible materials (see below). Store away from foodstuffs, beverages, and animal feed. Containers should be kept in a secondary containment tray and in an area accessible only to trained personnel, with labeling consistent with 29 CFR 1910.1200(f). Periodically inspect containers for integrity; do not return contaminated material to the original container.

Incompatibilities

Avoid contact with strong oxidizing agents (e.g., peroxides, perchlorates, concentrated nitric acid, chromates, permanganates), which may react vigorously with the organic substrate. Strong acids and strong bases should be avoided, as they can hydrolyze the amide linkage between the nicotinoyl and gamma-aminobutyric acid moieties. Avoid strong reducing agents and electrophilic reagents that may react with the pyridine nitrogen, the secondary amide, or the carboxylic acid group. Protect from prolonged exposure to moisture, heat, and direct sunlight/UV light, which may promote degradation. Hazardous decomposition products on heating or combustion may include carbon monoxide, carbon dioxide, and nitrogen oxides (NOx); refer to Section 10 for additional stability and reactivity information.

Section 8 — Exposure Controls / Personal Protection

Exposure Limits

No regulatory occupational exposure limits (OEL) have been established by OSHA, ACGIH, NIOSH, or equivalent bodies. No biological exposure indices (BEIs) have been established. Control exposure to the lowest level reasonably achievable (ALARA) using the engineering controls and PPE specified below. Picamilon (CAS 34562-97-5) is not listed in OSHA 29 CFR 1910.1000 Tables Z-1/Z-2/Z-3, the ACGIH TLV list, the NIOSH Pocket Guide to Chemical Hazards, the ECHA list of indicative/binding OELs, or the German MAK list. Handle as a potentially bioactive substance of unknown toxicity.

Engineering Controls

Use in a well-ventilated laboratory area. Weighing, transfer, and other dust-generating operations should be performed inside a certified chemical fume hood, ventilated balance enclosure, or Class I/II biosafety cabinet to keep airborne exposure below the ALARA principle. Where containment cannot prevent release of dust or aerosols, use a local exhaust ventilation (LEV) system designed in accordance with ACGIH Industrial Ventilation: A Manual of Recommended Practice. Provide accessible emergency eyewash and safety shower meeting ANSI/ISEA Z358.1 within the immediate work area. Do not eat, drink, smoke, or store food in areas where this substance is handled. Wash hands thoroughly after handling and before breaks. Maintain good housekeeping to prevent accumulation of dust on surfaces.

Personal Protective Equipment

Respiratory Protection: No regulatory OEL exists, so airborne concentrations cannot be quantitatively assessed. Where engineering controls (fume hood, ventilated enclosure, glove box) adequately contain the material, routine respiratory protection is not required. For operations that may generate dust or aerosols outside of containment (e.g., weighing bulk powder on an open bench, sweeping spills), use, at minimum, a NIOSH-approved air-purifying respirator equipped with N95 or P100 particulate filters (42 CFR Part 84). For higher-exposure or unknown-concentration tasks, use a NIOSH-approved powered air-purifying respirator (PAPR) with HEPA filters. All respirator use in the United States must comply with a written respiratory protection program under OSHA 29 CFR 1910.134, including medical clearance, fit testing, and training.

Hand Protection: Wear chemical-resistant gloves meeting EN ISO 374-1 / ANSI-ISEA 105. Nitrile rubber gloves of at least 0.11 mm thickness are generally suitable for handling small quantities of solid organic compounds; for prolonged contact, with solutions, or for spill response, use heavier nitrile or butyl rubber gloves and verify suitability with the glove manufacturer's permeation data. Inspect gloves before use, replace immediately if torn, punctured, or contaminated, and remove using proper technique to avoid skin contact. Wash hands with soap and water after glove removal.

Eye / Face Protection: Wear tight-fitting safety glasses with side shields, or preferably chemical splash goggles, meeting ANSI/ISEA Z87.1 (US) or EN 166 (EU), whenever this substance is handled. A full face shield worn over goggles is recommended when handling bulk quantities, performing operations with splash or dust potential, or working outside containment. Contact lenses should not be relied upon as protective devices. Ensure an ANSI/ISEA Z358.1-compliant emergency eyewash station is available within 10 seconds of the work area.

Skin Protection: Wear a long-sleeved laboratory coat or chemical-resistant lab coat/gown over street clothing, full-length trousers, and closed-toe chemical-resistant shoes. For handling larger quantities, response to spills, or operations with splash potential, wear a chemical-resistant apron and/or disposable coveralls meeting EN 14605 or equivalent. Remove contaminated clothing promptly and launder before reuse; dispose of grossly contaminated PPE as chemical waste. Do not wear contaminated workwear outside the work area. Wash exposed skin promptly with soap and water after handling and before breaks.

Section 9 — Physical and Chemical Properties

Physical State	Solid (research-grade lyophilised powder or crystalline solid)
Appearance	White to off-white crystalline powder
Odor	Odorless
Odor Threshold	Not available.
Boiling Point	*Not determined*
Melting Point	*Not determined*
Flash Point	*Not determined*
Auto-ignition Temperature	No data available.
Decomposition Temperature	No experimental data available.
Vapor Pressure	*Not determined*

Vapor Density	*Not determined*
Specific Gravity	*Not determined*
Partition Coefficient (log Kow)	No experimental data available.
Solubility	Soluble in water
Stability in Solution	Subject to hydrolytic and oxidative degradation typical of the chemical class; store reconstituted solutions refrigerated or frozen, protect from light, and use within the stability window indicated on the Certificate of Analysis.
pH	*Not determined*
Molecular Weight	208.21 g/mol
Molecular Formula	C10H12N2O3

Section 10 — Stability and Reactivity

Chemical Stability: Stable under normal conditions of use, storage, and transport.

Conditions to Avoid: Excessive heat, open flames, sparks, incompatible materials.

Incompatible Materials: Avoid contact with strong oxidizing agents (e.g., peroxides, perchlorates, concentrated nitric acid, chromates, permanganates), which may react vigorously with the organic substrate. Strong acids and strong bases should be avoided, as they can hydrolyze the amide linkage between the nicotinoyl and gamma-aminobutyric acid moieties. Avoid strong reducing agents and electrophilic reagents that may react with the pyridine nitrogen, the secondary amide, or the carboxylic acid group. Protect from prolonged exposure to moisture, heat, and direct sunlight/UV light, which may promote degradation. Hazardous decomposition products on heating or combustion may include carbon monoxide, carbon dioxide, and nitrogen oxides (NOx); refer to Section 10 for additional stability and reactivity information.

Hazardous Decomposition Products: Upon combustion or decomposition may produce: carbon monoxide (CO), carbon dioxide (CO2), nitrogen oxides (NOx).

Hazardous Polymerization: Will not occur.

Section 11 — Toxicological Information

The toxicological properties of this substance have not been fully characterized. Where no authoritative study data was identified, endpoint classifications are based on a weight-of-evidence approach using read-across from the compound's chemical class and structural features, per GHS Rev.8 Chapter 1.3.2.4. "Not classified" entries below mean "not classified based on currently available data" — hazards cannot be excluded.

Acute Toxicity: Acute toxicity of Picamilon (CAS 34562-97-5) has not been fully characterized. No authoritative acute oral, dermal, or inhalation LD50/LC50 values from OSHA, NIOSH, NTP, EPA, ECHA, or peer-reviewed primary literature have been identified for this substance. PubChem (CID 60608) does not list a harmonized GHS acute toxicity classification. In the absence of substance-specific data covering all relevant routes (oral, dermal, inhalation), the substance is not classified for acute toxicity based on currently available data; however, hazards cannot be excluded (per GHS Rev.8, Chapter 1.3.2.4). Handle as if potentially harmful by ingestion, skin contact, and inhalation of dust.

Skin Corrosion / Irritation: No experimental skin corrosion or irritation data (e.g., OECD TG 404, 431, or 439) from ECHA, EPA, or peer-reviewed sources have been located for Picamilon. The toxicological properties of this substance are not fully characterized with respect to this endpoint. Not classified for skin corrosion/irritation based on currently available data; hazards cannot be excluded (GHS Rev.8, Chapter 1.3.2.4). As a carboxylic-acid-containing organic solid, mechanical irritation from dust contact with skin is plausible and should be avoided.

Serious Eye Damage / Irritation: No experimental serious eye damage or eye irritation data (e.g., OECD TG 405, 437, 438, 492) from ECHA, EPA, or peer-reviewed primary sources have been located for Picamilon. This endpoint is

not fully characterized. Not classified for serious eye damage/eye irritation based on currently available data; hazards cannot be excluded (GHS Rev.8, Chapter 1.3.2.4). Direct contact of solid or dust with the eye may produce mechanical irritation.

Skin / Respiratory Sensitization: No validated respiratory or skin sensitization study data (e.g., OECD TG 429 LLNA, TG 442A-442E, or guinea-pig maximization) from ECHA, EPA, NTP, or peer-reviewed primary literature have been identified for Picamilon. The sensitization potential is not fully characterized. Not classified for respiratory or skin sensitization based on currently available data; hazards cannot be excluded (GHS Rev.8, Chapter 1.3.2.4).

Germ Cell Mutagenicity / Genotoxicity: Not classified based on currently available data; hazards cannot be excluded. Weight-of-evidence assessment applied using read-across from chemical class and structural considerations (GHS Rev.8 Chapter 1.3.2.4); no authoritative substance-specific study data identified.

Carcinogenicity: Picamilon is not listed by IARC, the U.S. National Toxicology Program (NTP) Report on Carcinogens, OSHA (29 CFR 1910.1001-1052), the U.S. EPA IRIS database, or the ACGIH TLV Carcinogen list. No long-term carcinogenicity bioassay (e.g., OECD TG 451/453) has been identified in authoritative sources. Carcinogenic potential is not fully characterized. Not classified for carcinogenicity based on currently available data; hazards cannot be excluded (GHS Rev.8, Chapter 1.3.2.4).

Reproductive Toxicity: No authoritative reproductive or developmental toxicity studies (e.g., OECD TG 414, 416, 421, 422, 443) for Picamilon have been identified in ECHA, EPA, NTP, or peer-reviewed primary literature. This endpoint is not fully characterized. Not classified for reproductive toxicity or effects on/via lactation based on currently available data; hazards cannot be excluded (GHS Rev.8, Chapter 1.3.2.4).

Specific Target Organ Toxicity (STOT): Specific Target Organ Toxicity - Single Exposure (STOT-SE): No authoritative single-exposure STOT data (OECD TG 420, 423, 425, or equivalent observations) have been identified for Picamilon. Not classified for STOT-SE based on currently available data; hazards cannot be excluded (GHS Rev.8, Chapter 1.3.2.4). Specific Target Organ Toxicity - Repeated Exposure (STOT-RE): No subchronic or chronic repeated-dose toxicity studies (e.g., OECD TG 407, 408, 410, 411, 413) from ECHA, EPA, NTP, or peer-reviewed primary literature have been identified for this substance. Not classified for STOT-RE based on currently available data; hazards cannot be excluded (GHS Rev.8, Chapter 1.3.2.4). The toxicological profile of Picamilon is not fully characterized; minimize all routes of occupational exposure.

Aspiration Hazard: Not classified based on currently available data; hazards cannot be excluded. Weight-of-evidence assessment applied using read-across from chemical class and structural considerations (GHS Rev.8 Chapter 1.3.2.4); no authoritative substance-specific study data identified.

Derived No-Effect Level (DNEL): No data available — no substance-specific DNEL has been derived.

Predicted No-Effect Concentration (PNEC): No data available — no substance-specific PNEC has been derived.

Section 12 — Ecological Information

No authoritative substance-specific ecotoxicity study data was identified. In the absence of experimental data, adverse environmental effects cannot be fully excluded.

Ecotoxicity: No substance-specific experimental aquatic toxicity data (e.g., fish LC50, Daphnia EC50, algal ErC50) for picamilon (CAS 34562-97-5) were identified in authoritative regulatory databases (ECHA, EPA, PubChem) or peer-reviewed literature at the time of preparation. Not classified as hazardous to the aquatic environment under GHS based on weight-of-evidence assessment (no authoritative experimental data identified). The compound is a water-soluble small organic molecule (a nicotinic-acid amide of gamma-aminobutyric acid); release to surface waters, soil, or wastewater should nonetheless be avoided as a matter of prudent practice.

Persistence and Degradability: No substance-specific experimental data on ready biodegradability (e.g., OECD 301-series tests) or abiotic degradation (hydrolysis, photolysis) for picamilon (CAS 34562-97-5) were identified in authoritative sources. The molecule contains an amide linkage between nicotinic acid and 4-aminobutanoic

acid (GABA) that is potentially susceptible to enzymatic and chemical hydrolysis, but no measured half-lives in environmental compartments have been reported.

Bioaccumulative Potential: No experimentally determined bioconcentration factor (BCF) or measured log Kow for picamilon (CAS 34562-97-5) was identified in authoritative regulatory databases or peer-reviewed literature. The substance is a zwitterionic, water-soluble carboxylic acid of low molecular weight (208.21 g/mol) bearing both a basic pyridine nitrogen and an acidic carboxylate, physicochemical features generally associated with low potential for bioaccumulation; however, in the absence of substance-specific experimental data, bioaccumulation potential cannot be definitively assessed.

Mobility in Soil: No substance-specific experimental data identified.

Other Adverse Effects: No other adverse environmental effects identified. The substance is not included on the Montreal Protocol list of ozone-depleting substances.

Section 13 — Disposal Considerations

Dispose of contents and container in accordance with all local, state, and federal regulations. Do not dispose of this material into sewers or waterways. Contact a licensed waste disposal company for disposal guidance.

US: Dispose in accordance with 40 CFR Parts 261-270 (RCRA). **EU:** Dispose according to Directive 2008/98/EC (Waste Framework Directive).

Section 14 — Transport Information

DOT (US)	Not regulated as dangerous goods under DOT (49 CFR) based on current classification.
IATA	Not regulated as dangerous goods under IATA Dangerous Goods Regulations based on current classification.
IMDG	Not regulated as dangerous goods or as a marine pollutant under the IMDG Code based on current classification.
UN Number	Not applicable.

Transport classifications above are based on the substance's intrinsic hazard classification; the shipper must independently verify the classification, packaging, labelling, and documentation requirements for their specific shipment configuration, quantity, and carrier (including airline policies) prior to dispatch.

Section 15 — Regulatory Information

United States

TSCA (Toxic Substances Control Act): May be eligible for exemption from TSCA inventory listing requirements under the R&D provisions of 40 CFR 720.36, depending on actual conditions of use. This substance is supplied solely for use in scientific research and development in small quantities; it is not intended for, and shall not be used for, any commercial manufacturing, processing, or distribution in commerce. The importer/end user is responsible for confirming that the R&D exemption criteria are met for their specific use. **OSHA HazCom 2012:** This SDS was prepared in accordance with 29 CFR 1910.1200 (HazCom 2012), aligned with the Globally Harmonized System (GHS) Rev. 8. **CERCLA / SARA Title III:** Not listed as a CERCLA Hazardous Substance (40 CFR 302.4); not subject to SARA 313 reporting based on available classification data. Users must independently verify applicability for their facility.

European Union

REACH (EC 1907/2006): Supplied solely for Scientific Research and Development (SR&D) use in quantities below 1 tonne per year per legal entity. Where applicable, this use may be exempt from REACH registration obligations under the scientific research and development provisions of REACH Article 3(23) and the conditions of Article 26(3); importers/users should independently verify the applicable exemption pathway for their specific use. If the substance is used as part of a formally notified Product and Process Oriented Research and Development (PPORD) programme, the separate notification procedure under REACH Article 9 (with a 5-year exemption renewable once) may apply instead. **CLP (EC 1272/2008):** Not classified under CLP based on available data; no harmonized classification entry identified in Annex VI of CLP or the ECHA Classification and Labelling (C&L) Inventory.

Canada

WHMIS 2015 / HPR: Not classified as a hazardous product under the Hazardous Products Act and Hazardous Products Regulations (SOR/2015-17) based on available data and weight-of-evidence assessment. Supplied for laboratory research use only. **DSL/NDSL:** Research-use exemption applies; substance is not intended for commercial import or manufacture in Canada.

Note: The regulatory statements above reflect the intended use of this substance for scientific research and development only and do not constitute a legal determination of regulatory status. If the substance is used outside the R&D exemption scope, users are solely responsible for independently verifying applicable regulatory obligations (TSCA, REACH, WHMIS, state, and local) for their specific use and jurisdiction prior to any such use.

Section 16 — Other Information

Document ID	81cc7bfe-eea8-48cd-a14f-dc86d8efa902
Revision Date	2026-08-07
Version	1.0
Prepared By	Prepared in accordance with GHS Rev.8 and OSHA HazCom 2012 (29 CFR 1910.1200). Independent review by a qualified chemical safety professional is recommended prior to use.

Revision History

Revision date: 2026-08-07
Version: 1.0
Change description: Initial issue. Document prepared in 16-section GHS Rev.8 / OSHA HazCom 2012 format.

Sources Used

- PubChem (U.S. National Library of Medicine / NCBI) — https://pubchem.ncbi.nlm.nih.gov
- Peer-reviewed chemistry and toxicology literature (class-based read-across and weight-of-evidence assessment per GHS Rev.8 Chapter 1.3.2.4)
- OSHA HazCom 2012 / 29 CFR 1910.1200 Appendix A–C; GHS Rev.8; OECD Test Guidelines

Key to Abbreviations

CAS = Chemical Abstracts Service; GHS = Globally Harmonized System of Classification and Labelling of Chemicals; OSHA = U.S. Occupational Safety and Health Administration; HazCom = Hazard Communication Standard; REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals; CLP = Classification, Labelling and Packaging Regulation; TSCA = Toxic Substances Control Act; WHMIS = Workplace Hazardous Materials Information System; OEL = Occupational Exposure Limit; PEL = Permissible Exposure Limit; TLV = Threshold Limit Value; REL = Recommended Exposure Limit; STOT = Specific Target Organ Toxicity; LD50 =

Median Lethal Dose; LC50 = Median Lethal Concentration; PPE = Personal Protective Equipment; SCBA = Self-Contained Breathing Apparatus; R&D = Research and Development.

Disclaimer

DISCLAIMER: The information in this Safety Data Sheet is compiled from the authoritative sources cited above, supplemented by weight-of-evidence assessment based on the compound's chemical class and published literature. It is believed to be accurate as of the revision date but is provided "as is" without warranty of any kind, express or implied, including fitness for a particular purpose. The preparer of this document has not independently tested the substance described herein. Users bear sole responsibility for verifying all information, ensuring safe handling, and compliance with all applicable federal, state, provincial, and local regulations. This SDS is not a substitute for independent chemical safety assessment by a qualified professional. This product is intended for scientific research and development use only and is not for human consumption, drug, food, cosmetic, agricultural, or household use.

This SDS complies with GHS Revision 8 / UN GHS Rev.8 and OSHA HazCom 2012 (29 CFR 1910.1200).