Pinealon

CAS: 175175-23-2
Formula: C15H26N6O8

Document ID: 6c79bd81
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Version: 1.0

Section 1 — Product and Company Identification

Product Name	Pinealon
Synonyms	Glu-Asp-Arg; glutamyl-aspartyl-arginine; CHEBI:156374
CAS Number	175175-23-2
Molecular Formula	C15H26N6O8
IUPAC Name	(4S)-4-amino-5-[[(2S)-3-carboxy-1-[[(1S)-1-carboxy-4-(diaminomethylideneamino)butyl]amino]-1-oxopropan-2-yl]amino]-5-oxopentanoic 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
Phone	+1-804-636-6879
Website	https://ruo.bio/
Emergency Phone	+1(804)636-6879 - Monday-Friday: 9:00 AM - 5:00 PM Pacific

Section 2 — Hazard Identification

Classification of the substance

Not classified based on currently available data; however, data is limited and hazards cannot be fully characterized. The absence of classification should not be interpreted as a determination of the absence of hazard.

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: None

GHS Pictograms:
None required based on classification.

Hazard Statements
None. This substance is not classified for any GHS hazard class based on available data.

Precautionary Statements

- P261: Avoid breathing dust, fume, gas, mist, vapors, or spray.
- P264: Wash hands and exposed skin thoroughly after handling.
- P280: Wear protective gloves, protective clothing, and eye/face protection.
- P501: Dispose of contents and container in accordance with local, regional, national, and international regulations.

Precautionary statements are provided as best practice for handling substances with limited toxicological data, and are not a declaration of GHS classification.

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
Pinealon	175175-23-2	C15H26N6O8	418.4 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
Rinse cautiously with water for several minutes. If irritation persists, seek medical advice.

Skin Contact
Wash with soap and water. Remove contaminated clothing and wash before reuse. If irritation persists, seek medical advice.

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

Ingestion
Rinse mouth thoroughly with water. If large amounts are swallowed or if symptoms develop, seek medical advice. Do not induce vomiting unless directed by medical personnel.

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 Pinealon (L-Glu-L-Asp-L-Arg, CAS 175175-23-2) as a research-grade bioactive compound of incompletely characterized toxicity; treat with the level of caution appropriate for a substance whose full toxicological profile has not been established. In accordance with OSHA HazCom 2012 (29 CFR 1910.1200) and the principles of 29 CFR 1910.1450 (Laboratory Standard), work only in a well-ventilated area, preferably within a certified chemical fume hood or ventilated weighing enclosure to control the generation of dusts and aerosols during weighing, transfer, and reconstitution. Wear appropriate personal protective equipment as specified in Section 8, including chemical-resistant nitrile gloves, safety goggles or safety glasses with side shields, and a laboratory coat; use additional respiratory protection (NIOSH-approved N95 or higher particulate respirator) if engineering controls are inadequate to prevent inhalation of powder. Avoid all contact with skin, eyes, and mucous membranes, and avoid inhalation of dust or mist. Do not eat, drink, smoke, or apply cosmetics in areas where the substance is handled or stored. Ground and bond containers when transferring dry powder to minimize static accumulation. Use non-sparking utensils and antistatic techniques when handling the dry solid. Keep containers tightly closed when not in use to limit exposure to atmospheric moisture, carbon dioxide, and airborne contaminants; the compound contains free carboxyl, amine, and guanidino groups and is expected to be hygroscopic. Wash hands, forearms, and face thoroughly with soap and water after handling and before breaks or leaving the work area. Decontaminate work surfaces, balances, and reusable equipment

after use. Collect and manage residues, contaminated PPE, and waste in accordance with the disposal guidance in Section 13 and applicable federal, state, and local regulations.

Storage Conditions

Store the sealed original container in a cool, dry, well-ventilated area protected from light, moisture, heat, and incompatible materials. As is standard practice for lyophilized peptides (per general peptide-handling guidance summarized by peer-reviewed and technical literature), the neat solid is best stored desiccated at -20 degC, or preferably -80 degC for prolonged storage, to minimize hydrolysis, oxidation, and microbial degradation; consult the certificate of analysis or product documentation for the specific lot for any manufacturer-stated storage temperature and retest date, and do not extrapolate a shelf-life beyond what is documented. Protect from atmospheric moisture by storing over a suitable desiccant in a tightly closed, airtight container; allow the container to equilibrate to room temperature before opening to prevent condensation onto the hygroscopic powder. For reconstituted solutions, prepare fresh or dispense into single-use aliquots and freeze; avoid repeated freeze-thaw cycles, and avoid prolonged exposure to pH > 8, which can accelerate degradation of peptide bonds and side-chain functional groups. Keep containers clearly labeled in accordance with 29 CFR 1910.1200(f) (Hazard Communication labeling) and stored away from foodstuffs, oxidizers, strong acids, and strong bases. Storage areas should have restricted access, spill containment, and be constructed of chemically compatible materials. No specific NFPA or DOT storage class is assigned to this substance in authoritative regulatory listings reviewed (OSHA, NIOSH, EPA, ECHA, PubChem CID 10273502); apply general good laboratory storage practice for research chemicals of unknown hazard.

Incompatibilities

Avoid contact with strong oxidizing agents (e.g., peroxides, hypochlorites, permanganates, nitric acid, chromates), which can oxidize the arginine guanidino group and other amino-acid side chains and may generate hazardous decomposition products. Avoid strong acids and strong bases, which promote hydrolysis of the peptide bonds; alkaline conditions (pH > 8) in particular accelerate degradation. Avoid strong reducing agents and strong electrophiles/-alkylating agents (e.g., aldehydes, acid chlorides, anhydrides, isocyanates), which can react with free alpha-amino, carboxyl, and guanidino functionalities. Protect from prolonged exposure to heat, direct sunlight, ultraviolet light, and humid air, which may promote decomposition. Hazardous decomposition products upon thermal breakdown or combustion may include carbon monoxide, carbon dioxide, and nitrogen oxides (NOx), as is typical for nitrogen--containing organic compounds. No specific incompatibility data for CAS 175175-23-2 are listed by OSHA, NIOSH, EPA, ECHA, or PubChem; the above are general precautions based on the known reactivity of alpha-amino acids, peptide bonds, and the guanidino group.

Section 8 — Exposure Controls / Personal Protection

Exposure Limits

No regulatory occupational exposure limits (OEL) have been established by OSHA, ACGIH, NIOSH, or equivalent bodies for Pinealon (Glu-Asp-Arg; CAS 175175-23-2). 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. Handle as a potentially bioactive substance of unknown toxicity.

Engineering Controls

Use in a well-ventilated area with local exhaust ventilation adequate to keep airborne concentrations as low as reasonably achievable. Weighing, transfer, and manipulation of the dry lyophilized powder should be performed inside a certified chemical fume hood, ventilated balance enclosure, or Class I/II biosafety cabinet to prevent inhalation of dust or aerosols. For larger-scale operations or dusty tasks, use a containment device such as a glovebox or powder-handling isolator. General laboratory dilution ventilation is not sufficient as the sole control. Provide accessible eyewash stations and emergency safety showers in the immediate work area (per ANSI Z358.1). Maintain good industrial hygiene

practices: prohibit eating, drinking, smoking, and cosmetic application in areas where the substance is handled; wash hands thoroughly after handling and before breaks.

Personal Protective Equipment

Respiratory Protection: No airborne OEL has been established. Under normal laboratory handling of small quantities within a functioning fume hood or containment enclosure, additional respiratory protection is generally not required. If handling outside of engineering controls, if dust or aerosols may be generated, or if handling bulk quantities, wear a NIOSH-approved particulate respirator (minimum N95; use P100 or a powered air-purifying respirator (PAPR) with HEPA cartridges for higher-exposure tasks). Respirator selection, fit-testing, medical clearance, and use must comply with OSHA 29 CFR 1910.134. For unknown airborne concentrations or emergency response, use a supplied-air respirator or SCBA operated in positive-pressure mode.

Hand Protection: Wear chemically resistant, impervious laboratory gloves conforming to EN ISO 374 / ASTM D6978. Nitrile gloves (minimum thickness >= 0.11 mm) are generally suitable for handling this peptide powder and its aqueous solutions. Double-gloving is recommended when weighing or handling dry powder. Inspect gloves before use, replace immediately if punctured, torn, or contaminated, and remove using proper aseptic technique to avoid skin contact. Wash hands thoroughly with soap and water after glove removal. Because no specific permeation data are published for this compound, glove selection should be reconfirmed with the glove manufacturer for the specific solvent system in use.

Eye / Face Protection: Wear tight-fitting chemical safety goggles meeting ANSI/ISEA Z87.1 (or EN 166 equivalent) when handling the solid or solutions. A face shield worn over goggles is recommended when there is potential for splash, aerosol generation, or handling of larger volumes. Ordinary safety glasses are not sufficient when working outside a fume hood. Contact lenses should not be relied upon as eye protection.

Skin Protection: Wear a long-sleeved, fastened laboratory coat (or chemical-resistant lab gown) over clothing that fully covers the arms and legs, together with closed-toe, non-absorbent footwear. For tasks with splash potential or handling of larger quantities, wear a chemical-resistant apron or disposable coverall over the lab coat. Remove and segregate contaminated PPE promptly; do not launder contaminated clothing with general laundry. Wash any exposed skin thoroughly with soap and water after handling. Because Pinealon is a bioactive synthetic peptide of incompletely characterized human toxicity, minimize all skin contact regardless of quantity handled.

Section 9 — Physical and Chemical Properties

Physical State	Solid (research-grade lyophilised powder or crystalline solid)
Appearance	White lyophilized 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	418.4 g/mol
Molecular Formula	C15H26N6O8

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, hypochlorites, permanganates, nitric acid, chromates), which can oxidize the arginine guanidino group and other amino-acid side chains and may generate hazardous decomposition products. Avoid strong acids and strong bases, which promote hydrolysis of the peptide bonds; alkaline conditions (pH > 8) in particular accelerate degradation. Avoid strong reducing agents and strong electrophiles/alkylating agents (e.g., aldehydes, acid chlorides, anhydrides, isocyanates), which can react with free alpha-amino, carboxyl, and guanidino functionalities. Protect from prolonged exposure to heat, direct sunlight, ultraviolet light, and humid air, which may promote decomposition. Hazardous decomposition products upon thermal breakdown or combustion may include carbon monoxide, carbon dioxide, and nitrogen oxides (NOx), as is typical for nitrogen-containing organic compounds. No specific incompatibility data for CAS 175175-23-2 are listed by OSHA, NIOSH, EPA, ECHA, or PubChem; the above are general precautions based on the known reactivity of alpha-amino acids, peptide bonds, and the guanidino group.

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: No reliable acute toxicity data (oral, dermal, or inhalation LD50/LC50) for Glu-Asp-Arg (CAS 175175-23-2) are available from authoritative regulatory sources such as ECHA, NIOSH, or the U.S. EPA, and PubChem (CID 10273502) does not report a GHS acute toxicity classification for this substance. The acute toxicological properties of this substance are not fully characterized. Not classified based on currently available data; hazards cannot be excluded. Handle as a substance of unknown acute toxicity in accordance with 29 CFR 1910.1200 Appendix A.1.3.

Skin Corrosion / Irritation: No experimental skin corrosion/irritation data conforming to OECD TG 404/431/439 are available in ECHA registration dossiers or PubChem (CID 10273502) for CAS 175175-23-2. The skin irritation/corrosion potential is not fully characterized. Not classified based on currently available data; hazards cannot be excluded. Contact with skin should be avoided; the solid may cause mechanical irritation.

Serious Eye Damage / Irritation: No experimental eye irritation/serious eye damage data conforming to OECD TG 405/437/438/492 are available from authoritative sources (ECHA, PubChem CID 10273502) for CAS 175175-23-2. The ocular irritation potential is not fully characterized. Not classified based on currently available data; hazards cannot be excluded. Dust or solutions may cause transient mechanical irritation to the eye.

Skin / Respiratory Sensitization: No respiratory or skin sensitization data (OECD TG 429, 442A, 442B, 442C, 442D, 442E) are available from authoritative sources such as ECHA or the U.S. EPA for CAS 175175-23-2, and PubChem (CID 10273502) does not report a GHS sensitization classification. Sensitization potential is not fully characterized. Not classified based on currently available data; hazards cannot be excluded.

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: CAS 175175-23-2 is not listed by IARC, the U.S. National Toxicology Program (NTP 15th Report on Carcinogens), OSHA (29 CFR 1910 Subpart Z), the U.S. EPA IRIS program, or the ACGIH TLV carcinogen list. No long-term carcinogenicity bioassays (e.g., OECD TG 451/453) have been published for this substance. Carcinogenic potential is not fully characterized. Not classified based on currently available data; hazards cannot be excluded.

Reproductive Toxicity: No reproductive or developmental toxicity studies (OECD TG 414, 416, 421, 422, 443) for CAS 175175-23-2 are available from ECHA, the U.S. EPA, or NTP, and the substance is not listed on the California Proposition 65 list of chemicals known to cause reproductive toxicity. Reproductive/developmental toxicity is not fully characterized. Not classified based on currently available data; hazards cannot be excluded.

Specific Target Organ Toxicity (STOT): No specific target organ toxicity data from single exposure (STOT-SE, GHS Chapter 3.8) or repeated exposure (STOT-RE, GHS Chapter 3.9) studies conforming to OECD TG 407/408/410/412/-413 are available from ECHA, NIOSH, or the U.S. EPA for CAS 175175-23-2. Target-organ effects following single or repeated exposure are not fully characterized. Not classified based on currently available data (GHS Rev.8, S1.3.2.4 weight-of-evidence); hazards cannot be excluded. Minimize exposure as a matter of prudent industrial hygiene.

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 ecotoxicity data (e.g., fish LC50, Daphnia EC50, algal ErC50) have been identified for Pinealon (CAS 175175-23-2) in authoritative regulatory databases (ECHA, EPA ECOTOX, OECD SIDS) or peer-reviewed literature. Not classified as hazardous to the aquatic environment (acute or chronic) under GHS/CLP based on a weight-of-evidence assessment in the absence of authoritative experimental data. Avoid release to surface water, drains, and soil.

Persistence and Degradability: No substance-specific experimental data on persistence, ready biodegradability (e.g., OECD 301 series), or abiotic degradation (hydrolysis, photolysis) have been identified in authoritative sources for this substance.

Bioaccumulative Potential: No substance-specific experimental bioaccumulation data (measured log Kow, BCF per OECD 305, or bioconcentration studies) have been identified in authoritative sources for Pinealon. The compound is a highly polar, ionizable, water-soluble molecule (MW 418.40; multiple carboxylate, amine, and guanidino functionalities)-, physicochemical characteristics that are generally not conducive to significant bioaccumulation; however, this qualitative consideration does not substitute for an experimental determination.

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	6c79bd81-0a79-40a6-9a4f-720e77ca5798
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).