



GHS / OSHA HazCom 2012 Compliant

GLP-S

CAS: 89750-14-1
Formula: C₁₄₉H₂₂₆N₄₀O₄₅

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Version: 1.0

[illegible]

	Not for human or veterinary use. Not for food, drug, cosmetic, household, agricultural, clinical, therapeutic, or diagnostic applications.
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Manufacturer / Supplier

Company	Lab Rats Collective
Address	5900 Balcones Dr, Ste 100, Austin, TX 78731, US
Phone	9728370284
Website	https://labratsco.com/
Emergency Contact	CHEMTREC
Emergency Phone	800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week

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
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GLP-S	89750-14-1	C149H226N40O45	3297.6 g/mol	>98% (research grade)
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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 GLP-1 (CAS 89750-14-1) only in a well-ventilated laboratory area, preferably within a certified chemical fume hood or biosafety cabinet, to minimize the potential for inhalation of airborne particulates during weighing, transfer, or reconstitution. Because this peptide is a bioactive compound of unknown toxicological profile, apply the precautionary principle consistent with OSHA HazCom 2012 (29 CFR 1910.1200) and the OSHA Laboratory Standard (29 CFR 1910.1450): assume it may be hazardous and minimize all routes of exposure. Wear appropriate personal protective equipment, including chemical-resistant nitrile gloves, a lab coat, and ANSI Z87.1-compliant safety eyewear; use a NIOSH-approved particulate respirator (e.g., N95 or higher) if operations may generate dust or aerosols. Avoid skin contact, eye contact, ingestion, and inhalation. Do not eat, drink, smoke, or apply cosmetics in areas where the substance is handled. As peptides are hygroscopic, allow sealed vials to equilibrate to ambient temperature inside a desiccator before opening to prevent condensation and moisture uptake, per general peptide-handling guidance published by peer-reviewed and technical peptide-chemistry references. Weigh out material quickly and reseal containers under dry, inert atmosphere (e.g., nitrogen or argon) where feasible. Avoid repeated freeze-thaw cycles of reconstituted solutions by preparing single-use aliquots. Wash hands and exposed skin thoroughly after handling. Use good industrial hygiene practices and engineering controls to keep airborne exposures as low as reasonably achievable; no OSHA PEL, ACGIH TLV, or NIOSH REL has been established for this substance.

Storage Conditions

Store the lyophilized (powder) form in a tightly closed original container, protected from light, moisture, and oxygen. Recommended storage for long-term stability of synthetic peptides such as GLP-1 is at -20 degC, or preferably -80 degC for extended archival storage, consistent with generally accepted peptide storage practices described in peer-reviewed and technical peptide-chemistry literature. Keep the container in a desiccator or with desiccant, ideally under an inert gas headspace (nitrogen or argon), to prevent hydrolysis and oxidation. Store away from direct sunlight, heat sources, ignition sources, and incompatible materials (see below). Reconstituted aqueous solutions should be aliquoted and frozen to avoid repeated freeze-thaw cycles; exposure to pH > 8 should be avoided, as alkaline conditions promote peptide degradation. Storage areas should be secure, clearly labeled in accordance with OSHA HazCom 2012 (29 CFR 1910.1200(f)), accessible only to trained personnel, and equipped with appropriate secondary containment. Do not store with food, beverages, or animal feed. Verify container integrity periodically and follow any manufacturer-specified retest or expiration dates; no authoritative regulatory shelf-life value has been established for this specific substance.

Incompatibilities

As a polypeptide, GLP-1 is chemically susceptible to degradation on contact with strong oxidizing agents (which can oxidize methionine, tryptophan, and cysteine residues), strong reducing agents (which can cleave disulfide bonds if present), and strong acids or strong bases (which promote hydrolysis of peptide bonds and deamidation of asparagine/glutamine). Avoid contact with proteolytic enzymes, heavy-metal salts, and reactive electrophiles (e.g., aldehydes, alkylating agents) that can covalently modify amino-acid side chains. The substance is also incompatible with prolonged exposure to elevated temperatures, high humidity, direct sunlight/UV radiation, and alkaline conditions (pH > 8), all of which accelerate chemical and physical degradation. Hazardous decomposition products from thermal breakdown may include carbon oxides (CO, CO₂) and nitrogen oxides (NO). No further specific incompatibilities have been established by an authoritative regulatory source (OSHA, NIOSH, EPA, ECHA) for this substance.

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. Handle as a potentially bioactive substance of unknown toxicity.

Engineering Controls

Use only in a well-ventilated area. Handle within a closed system wherever feasible. Weighing, transfer, and manipulation of the dry peptide (a fine, potentially airborne powder) should be conducted inside a ventilated enclosure such as a certified laboratory fume hood, a Class I or Class II biological safety cabinet, a ventilated balance/powder--handling enclosure, or a glove box. Apply the hierarchy of controls (29 CFR 1910.1200 Appendix and ANSI/AIHA Z9.5 for laboratory ventilation): substitution/isolation, local exhaust ventilation, and administrative controls before relying on PPE. Provide readily accessible emergency eyewash and safety shower stations (ANSI Z358.1) in the work area. Prohibit eating, drinking, smoking, and cosmetic use in areas of use and storage. Implement housekeeping procedures that avoid dust generation (HEPA vacuum or damp wipe; do not dry-sweep).

Personal Protective Equipment

Respiratory Protection: Respiratory protection is not normally required when the peptide is handled inside a properly functioning fume hood or ventilated enclosure. If dust, mist, or aerosol may be generated outside such containment, or if airborne concentrations cannot be adequately controlled, use a NIOSH-approved (42 CFR Part 84) air-purifying respirator equipped with N100/P100 particulate filters, or a powered air-purifying respirator (PAPR) for higher exposure potential. Respirator selection, fit-testing, medical clearance, and use must follow an OSHA-compliant written respiratory protection program (29 CFR 1910.134).

Hand Protection: Wear chemically resistant, powder-free disposable gloves meeting EN ISO 374-5 (biological/-chemical protection) and 29 CFR 1910.138. Nitrile gloves of at least 0.11 mm thickness are generally suitable for handling small quantities of solid peptide and aqueous solutions; double-gloving is recommended when weighing the neat solid or handling concentrated stock solutions. Inspect gloves before use, change immediately if contaminated or punctured, and wash hands thoroughly with soap and water after removal. Because no permeation data specific to CAS 89750-14-1 have been published by an authoritative source, select gloves based on the solvent/vehicle in use (e.g., DMSO, aqueous buffer, acetic acid) and consult the glove manufacturer's chemical resistance chart.

Eye / Face Protection: Wear tightly fitting safety glasses with side shields meeting ANSI/ISEA Z87.1 (as required by 29 CFR 1910.133) as a minimum. Where splash of solutions or generation of dust is possible, wear chemical splash goggles. A face shield worn over goggles is recommended when handling larger quantities, when performing operations that may release aerosols, or when working outside a fume hood. An emergency eyewash station meeting ANSI Z358.1 must be within 10 seconds of the work area.

Skin Protection: Wear a long-sleeved laboratory coat or chemical-resistant gown that is buttoned/closed, full-length trousers, and closed-toe chemical-resistant footwear in accordance with 29 CFR 1910.132. For operations with splash potential or handling of the neat solid outside containment, add a chemical-resistant apron or disposable coverall (e.g., Tyvek(R) or equivalent) and disposable sleeve covers. Contaminated clothing must be removed promptly, segregated, decontaminated or discarded as chemical/biohazardous waste, and not taken home for laundering. Wash exposed skin thoroughly 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 lyophilized powder
Odor	Odorless

Odor Threshold	Not available.
Boiling Point	<i>Not determined</i>
Melting Point	<i>Not determined</i>
Flash Point	<i>Not determined</i>
Auto-ignition Temperature	No data available.
Decomposition Temperature	No experimental data available.
Vapor Pressure	<i>Not determined</i>
Vapor Density	<i>Not determined</i>
Specific Gravity	<i>Not determined</i>
Partition Coefficient (log Kow)	No experimental data available.
Solubility	Soluble in water; soluble in dilute acetic acid
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	<i>Not determined</i>
Molecular Weight	3297.6 g/mol
Molecular Formula	C149H226N40O45

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: As a polypeptide, GLP-1 is chemically susceptible to degradation on contact with strong oxidizing agents (which can oxidize methionine, tryptophan, and cysteine residues), strong reducing agents (which can cleave disulfide bonds if present), and strong acids or strong bases (which promote hydrolysis of peptide bonds and deamidation of asparagine/glutamine). Avoid contact with proteolytic enzymes, heavy-metal salts, and reactive electrophiles (e.g., aldehydes, alkylating agents) that can covalently modify amino-acid side chains. The substance is also incompatible with prolonged exposure to elevated temperatures, high humidity, direct sunlight/UV radiation, and alkaline conditions (pH > 8), all of which accelerate chemical and physical degradation. Hazardous decomposition products from thermal breakdown may include carbon oxides (CO, CO₂) and nitrogen oxides (NO). No further specific incompatibilities have been established by an authoritative regulatory source (OSHA, NIOSH, EPA, ECHA) for this substance.

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

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 data specific to GLP-1 (CAS 89750-14-1) are not fully characterized in authoritative sources such as NIOSH, ECHA, or peer-reviewed toxicology literature. No reliable oral, dermal, or inhalation

LD50/LC50 values have been identified from OSHA, NIOSH, ECHA, or peer-reviewed sources. Not classified based on currently available data; hazards cannot be excluded (GHS Rev.8, Chapter 1.3.2.4). 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 or irritation data specific to GLP-1 have been located in authoritative databases (ECHA, PubChem, NIOSH). Not classified based on currently available data; hazards cannot be excluded (GHS Rev.8, Chapter 1.3.2.4). As a synthetic polypeptide powder, mechanical or dust-related irritation of exposed skin cannot be excluded; avoid direct contact.

Serious Eye Damage / Irritation: No experimental serious eye damage or eye irritation data specific to GLP-1 have been located in authoritative databases (ECHA, PubChem, NIOSH). Not classified based on currently available data; hazards cannot be excluded (GHS Rev.8, Chapter 1.3.2.4). Particulates of the solid substance may cause mechanical irritation to the eye on contact.

Skin / Respiratory Sensitization: No respiratory or skin sensitization studies for GLP-1 (CAS 89750-14-1) have been identified in ECHA, NIOSH, or peer-reviewed sources. As with other high-molecular-weight polypeptides, a potential to act as a respiratory or dermal sensitizer following repeated exposure cannot be excluded on a weight-of-evidence basis (GHS Rev.8, Chapter 3.4). 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: GLP-1 (CAS 89750-14-1) is not listed as a carcinogen by IARC, the U.S. National Toxicology Program (NTP) Report on Carcinogens, OSHA (29 CFR 1910 Subpart Z), or the ACGIH TLV list. No carcinogenicity bioassays specific to this substance have been identified in authoritative sources. Not classified based on currently available data; hazards cannot be excluded (GHS Rev.8, Chapter 3.6).

Reproductive Toxicity: No reproductive or developmental toxicity studies specific to GLP-1 (CAS 89750-14-1) have been located in ECHA, NTP, or peer-reviewed toxicology sources meeting GHS Rev.8 Chapter 3.7 classification criteria. Not classified based on currently available data; hazards cannot be excluded. Handle with precautions appropriate for a substance whose reproductive hazard profile is not fully characterized.

Specific Target Organ Toxicity (STOT): STOT-Single Exposure (STOT-SE): No authoritative data are available to identify specific target organs following a single exposure to GLP-1. Not classified based on currently available data; hazards cannot be excluded (GHS Rev.8, Chapter 3.8). STOT-Repeated Exposure (STOT-RE): No repeated-dose toxicity studies specific to this substance meeting GHS Rev.8 Chapter 3.9 classification criteria have been identified in ECHA, NIOSH, or peer-reviewed sources. Not classified based on currently available data; hazards cannot be excluded. The toxicological properties of this substance are not fully characterized; minimize all routes of 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) have been identified for GLP-1 (CAS 89750-14-1) in authoritative regulatory databases (ECHA, EPA, PubChem). The substance is not classified as hazardous to the aquatic environment based on a weight-of-evidence assessment in the absence of authoritative experimental data. The compound is a 31-residue endogenous polypeptide (C149H226N40O45, MW 3297.6) composed exclusively of proteinogenic amino-acid residues; its high molecular

weight and polar, ionizable character suggest limited passive uptake by aquatic organisms, but this has not been experimentally verified. Release to the environment should nevertheless be avoided as a precautionary measure.

Persistence and Degradability: No substance-specific ready biodegradability (e.g., OECD 301 series) or simulation test data have been identified for GLP-1 (CAS 89750-14-1) in ECHA, EPA, or PubChem records. As an oligopeptide constructed entirely of standard L-alpha-amino-acid residues linked by peptide bonds and containing no halogen, sulfur, phosphorus, or other recalcitrant heteroatom substituents, biological hydrolysis by extracellular proteases and peptidases in environmental compartments is expected; however, this expectation is not supported by substance-specific experimental studies and should not be interpreted as a formal biodegradability classification.

Bioaccumulative Potential: No experimentally determined log Kow (octanol/water partition coefficient), bioconcentration factor (BCF), or bioaccumulation factor (BAF) has been identified for GLP-1 (CAS 89750-14-1) in authoritative sources. Given the large molecular weight (3297.6 g/mol, exceeding the 700 g/mol threshold commonly referenced in ECHA guidance R.11 above which passive membrane permeation and bioaccumulation potential are considered low), the highly polar and ionizable nature of the peptide backbone and side chains, and the susceptibility of peptide bonds to enzymatic hydrolysis, significant bioaccumulation in aquatic organisms is not anticipated. This assessment is qualitative and is not based on substance-specific experimental data.

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	eb934683-b89c-4b23-9485-abe8fc941be5
Revision Date	2026-08-03
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: 2026-08-03

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).