Viking Stack Peptides

Oxytocin acetate

CAS: 6233-83-6
Formula: C45H70N12O14S2

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Section 1 — Product and Company Identification

Product Name	Oxytocin acetate
Synonyms	Oxytocin acetate; 6233-83-6; UNII-4NR672T8NL
CAS Number	6233-83-6
PubChem CID	12004215
Molecular Formula	C45H70N12O14S2
IUPAC Name	acetic acid;(2S)-1-[(4R,7S,10S,13S,16S,19R)-19-amino-7-(2-amino-2-oxoethyl)-10-(3-amino-3-oxopropyl)-13-[(2S)-butan-2-yl]-16-[(4-hydroxyphenyl)methyl]-6,9,12,15,18-pentaoxo-1,2-dithia-5,8,11,14,17-pentazacycloicosane-4-carbonyl]-N-[(2S)-1-[(2-amino-2-oxoethyl)amino]-4-methyl-1-oxopentan-2-yl]pyrrolidine-2-carboxamide
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	Viking Stack Peptides
Address	560, Fort Worth, TX 76137, United States
Phone	8178816217
Emergency Phone	8178816217

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: **DANGER**

GHS Pictograms:

GHS06 GHS07 GHS08

Hazard Statements

- H301: Toxic if swallowed [Danger Acute toxicity, oral]
- H302: Harmful if swallowed [Warning Acute toxicity, oral]
- H317: May cause an allergic skin reaction [Warning Sensitization, Skin]
- H331: Toxic if inhaled [Danger Acute toxicity, inhalation]
- H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled [Danger Sensitization, respiratory]
- H360: May damage fertility or the unborn child [Danger Reproductive toxicity]
- H413: May cause long lasting harmful effects to aquatic life [Hazardous to the aquatic environment, long-term hazard]

Precautionary Statements

- P203
- P233
- P260
- P261
- P264
- P270
- P271
- P272
- P273
- P280
- P284
- P301+P316
- P301+P317
- P302+P352
- P304+P340
- P316
- P318
- P321
- P330
- P333+P317
- P342+P316
- P362+P364
- P403
- P403+P233
- P405

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
Oxytocin acetate	6233-83-6	C45H70N12O14S2	1067.2 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

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 immediately. If not breathing, give artificial respiration. If breathing is difficult, administer oxygen. Seek immediate medical attention.

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 only in areas equipped with appropriate ventilation (e.g., a chemical fume hood or ventilated enclosure) and by personnel trained in safe handling of potentially bioactive compounds of undefined occupational toxicity. Treat as a substance with no established occupational exposure limit (no OSHA PEL, NIOSH REL, or ACGIH TLV has been assigned for oxytocin acetate, CAS 6233-83-6); apply the principle of minimizing exposure (skin, eye, inhalation, ingestion) in accordance with OSHA HazCom 2012 (29 CFR 1910.1200) and the OSHA Laboratory Standard (29 CFR 1910.1450). Wear chemically resistant nitrile gloves, safety goggles, and a laboratory coat; use a suitable respirator (e.g., NIOSH-approved N95 or better) when weighing or handling the dry powder outside of engineering controls, as the material may become airborne as a fine dust. Avoid generation of dust, aerosols, and mist. Do not eat, drink, smoke, or apply cosmetics in work areas. Wash hands and exposed skin thoroughly after handling. Because the peptide contains a disulfide bridge and multiple hydrolytically labile amide bonds, minimize exposure to moisture, heat, and light during handling; allow sealed containers to warm to room temperature before opening to prevent condensation on the hygroscopic solid. Decontaminate work surfaces and reusable equipment after use, and collect waste in clearly labeled, closed containers for disposal in accordance with applicable federal, state, and local regulations.

Storage Conditions

Store in the tightly closed original container, protected from light, moisture, and air (an inert atmosphere such as nitrogen or argon in the headspace is recommended for opened containers). As a hygroscopic peptide acetate salt containing a disulfide bond, the compound is susceptible to hydrolysis and oxidative degradation; long-term storage of the dry solid is typically at -20 degC or colder, and reconstituted aqueous solutions should be aliquoted and stored frozen to minimize freeze-thaw cycles. Keep containers upright, clearly labeled per 29 CFR 1910.1200(f), and segregated from incompatible materials (see Incompatibilities). Store in a secure area accessible only to authorized personnel. No specific manufacturer- or regulator-issued shelf-life for CAS 6233-83-6 is cited here; follow the expiration or retest date provided on the container label.

Incompatibilities

Incompatible with strong oxidizing agents (which can oxidize the intramolecular cystine disulfide bond and methionine--adjacent/aromatic residues), strong reducing agents such as dithiothreitol, beta-mercaptoethanol, TCEP, and thiols (which cleave the disulfide bridge required for the cyclic peptide structure), and strong acids and strong bases (which promote hydrolysis of the peptide backbone and amide side chains). Avoid contact with heavy-metal ions (e.g., Cu2+, Zn2+, Fe3+), which are known to coordinate with and destabilize cysteine-containing peptides. Protect from moisture, heat, and direct light, as these accelerate hydrolytic and oxidative degradation. No hazardous polymerization is expected. Hazardous decomposition products may include carbon oxides (CO, CO2), nitrogen oxides (NO), and sulfur oxides (SO).

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 (nonapeptide hormone acetate salt).

Engineering Controls

Use in a controlled laboratory or pharmaceutical setting equipped with local exhaust ventilation. Weighing, dispensing, and manipulation of the dry powder should be performed inside a ventilated enclosure such as a certified chemical fume hood, ventilated balance enclosure, or Class II biological safety cabinet to minimize inhalation of airborne particulates. Where dust generation is possible, consider use of a containment device (e.g., glove box or isolator) consistent with pharmaceutical handling of potent peptide APIs and the principles of ALARA. Provide readily accessible eyewash stations and emergency safety showers in the work area, in accordance with ANSI/ISEA Z358.1. Prohibit eating, drinking, smoking, and application of cosmetics in areas where the substance is handled. Ensure surfaces are non-porous and easily decontaminated; use HEPA-filtered vacuuming rather than dry sweeping for cleanup of solids.

Personal Protective Equipment

Respiratory Protection: Respiratory protection is not normally required when the material is handled in a properly functioning fume hood or containment enclosure. If engineering controls are inadequate or if dust, mist, or aerosol generation cannot be controlled, wear a NIOSH-approved air-purifying respirator equipped with N100/P100 particulate filters, or a powered air-purifying respirator (PAPR) for higher-exposure operations. Respirator use must comply with the OSHA Respiratory Protection Standard (29 CFR 1910.134), including medical evaluation, fit testing, and a written respiratory protection program.

Hand Protection: Wear chemically resistant, impervious protective gloves conforming to EN 374 / ANSI/ISEA 105. Nitrile rubber gloves (minimum thickness >=0.11 mm) are generally suitable for handling small quantities of the solid or aqueous solutions; double-gloving is recommended for weighing and other operations with potential for skin contact. Inspect gloves before use, replace immediately if punctured, torn, or contaminated, and remove gloves without touching the outer surface. Wash hands thoroughly with soap and water after glove removal. Glove selection should be verified with the supplier for the specific solvent system in use.

Eye / Face Protection: Wear tightly fitting chemical safety goggles meeting ANSI/ISEA Z87.1 (or EN 166 in the EU) when handling this material. A full-face shield worn over safety goggles is recommended when there is a risk of splash, aerosol generation, or when handling larger quantities. Ordinary safety spectacles are not sufficient where dust or splash is possible.

Skin Protection: Wear a long-sleeved laboratory coat or chemical-resistant gown, full-length trousers, and closed-toe chemical-resistant footwear. For operations with a splash or bulk-handling potential, wear an impervious chemical-resistant apron or coverall over the lab coat. Contaminated clothing should be removed promptly and laundered separately before reuse; discard heavily contaminated disposable garments as chemical waste. Do not take contaminated work clothing home. Wash exposed skin thoroughly with soap and water after handling and before breaks and at the end of the work shift.

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	*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	3.0-5.0 (0.1% aqueous solution)
Molecular Weight	1067.2 g/mol
Molecular Formula	C45H70N12O14S2

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: Incompatible with strong oxidizing agents (which can oxidize the intramolecular cystine disulfide bond and methionine-adjacent/aromatic residues), strong reducing agents such as dithiothreitol, beta--mercaptoethanol, TCEP, and thiols (which cleave the disulfide bridge required for the cyclic peptide structure), and strong acids and strong bases (which promote hydrolysis of the peptide backbone and amide side chains). Avoid contact with heavy-metal ions (e.g., Cu2+, Zn2+, Fe3+), which are known to coordinate with and destabilize cysteine-containing peptides. Protect from moisture, heat, and direct light, as these accelerate hydrolytic and oxidative degradation. No hazardous polymerization is expected. Hazardous decomposition products may include carbon oxides (CO, CO2), nitrogen oxides (NO), and sulfur oxides (SO).

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

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 oxytocin acetate (CAS 6233-83-6) has not been fully characterized in classical regulatory acute toxicity studies (OECD 401/420/423/425). No LD50 or LC50 values from ECHA registration dossiers, NIOSH, or peer-reviewed acute toxicity studies could be located for this specific salt. According to notifications submitted to the ECHA C&L Inventory for oxytocin (parent compound), a minority of notifiers (approximately 10%)

classify the substance as Acute Toxicity Category 4 (H302, Harmful if swallowed); a majority do not apply an acute toxicity classification. In the absence of a harmonised CLP classification and given the limited public regulatory dataset, the substance is not classified for acute oral, dermal, or inhalation toxicity based on currently available data; however, hazards cannot be excluded (GHS Rev.8, S1.3.2.4). Handle as if potentially harmful by ingestion, inhalation, or skin contact.

Skin Corrosion / Irritation: No experimental skin corrosion/irritation data (OECD 404 or in vitro OECD 431/439) are available in authoritative sources (ECHA, NIOSH, peer-reviewed literature) for oxytocin acetate. The substance is not classified for skin corrosion or irritation based on currently available data; hazards cannot be excluded (GHS Rev.8, S1.3.2.4). Dust or solutions may cause mechanical or nonspecific irritation on contact; prevent skin contact.

Serious Eye Damage / Irritation: No experimental eye irritation/serious eye damage data (OECD 405, 437, 438, 491, 492) are available in authoritative sources for oxytocin acetate. The substance is not classified for serious eye damage or eye irritation based on currently available data; hazards cannot be excluded (GHS Rev.8, S1.3.2.4). Dust or solutions may cause mechanical irritation of the eye; avoid contact with eyes.

Skin / Respiratory Sensitization: No experimental skin sensitization data (OECD 406, 429, 442A-E) or respiratory sensitization data are available in authoritative sources for oxytocin acetate. The substance is not classified for skin or respiratory sensitization based on currently available data; hazards cannot be excluded (GHS Rev.8, S1.3.2.4). As a general precaution, avoid repeated or prolonged skin contact and inhalation of dusts or aerosols.

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: Oxytocin acetate is not listed as a carcinogen by IARC, the U.S. National Toxicology Program (NTP) Report on Carcinogens, OSHA (29 CFR 1910.1003), the U.S. EPA IRIS program, or the ACGIH TLV carcinogen list. No long-term carcinogenicity bioassays (OECD 451/453) have been identified in authoritative sources for this substance. The substance is not classified for carcinogenicity based on currently available data; hazards cannot be excluded (GHS Rev.8, S1.3.2.4).

Reproductive Toxicity: No harmonised CLP classification for reproductive toxicity exists for oxytocin acetate. According to notifications submitted to the ECHA C&L Inventory for oxytocin (parent compound), a minority of notifiers (approximately 14%) classify the substance as Reproductive Toxicity Category 2 (H361, Suspected of damaging fertility or the unborn child); the majority do not apply a reproductive toxicity classification. No OECD 414, 415, 416, 421, 422, or 443 guideline studies have been located in authoritative sources for oxytocin acetate. The toxicological profile for reproductive/developmental endpoints is not fully characterized; hazards to fertility or the developing fetus cannot be excluded (GHS Rev.8, S1.3.2.4). Women who are pregnant or may become pregnant should avoid occupational exposure as a precaution.

Specific Target Organ Toxicity (STOT): Specific Target Organ Toxicity - Single Exposure (STOT-SE): No OECD 420/423/425 or dedicated STOT-SE studies identifying target organs after a single occupational exposure have been located in authoritative sources for oxytocin acetate. Not classified for STOT-SE based on currently available data; hazards cannot be excluded (GHS Rev.8, S1.3.2.4). Specific Target Organ Toxicity - Repeated Exposure (STOT-RE): No OECD 407, 408, 409, 411, or 413 repeated-dose toxicity studies have been located in authoritative sources for this substance, and no occupational exposure limit has been established by OSHA (PEL), NIOSH (REL), or ACGIH (TLV). Not classified for STOT-RE based on currently available data; hazards cannot be excluded (GHS Rev.8, S1.3.2.4). The toxicological properties of this substance are 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 oxytocin acetate (CAS 6233-83-6) have been identified in authoritative sources such as ECHA, EPA ECOTOX, or PubChem. 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. As a pharmaceutically active substance (a cyclic nonapeptide hormone with acetate counter-ion), release to surface waters, wastewater, or soil should be avoided as a precaution.

Persistence and Degradability: No substance-specific experimental biodegradation, hydrolysis, or photolysis data for oxytocin acetate have been identified in authoritative regulatory databases (ECHA, EPA, PubChem). Environmental persistence has not been established; a definitive classification cannot be assigned in the absence of substance--specific study data.

Bioaccumulative Potential: No experimentally determined bioconcentration factor (BCF) or measured log Kow for oxytocin acetate has been identified in authoritative sources (ECHA registration dossiers, EPA, PubChem). Given the high molecular weight (1067.2 g/mol), multiple ionizable groups, and highly polar peptide backbone, significant bioaccumulation in aquatic organisms is not anticipated; however, this is a qualitative weight-of-evidence consideration and not a substitute for measured 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)	May be classified as a hazardous material for transport. Consult applicable transport regulations (49 CFR, IATA DGR, IMDG Code) before shipping.
IATA	May be restricted - consult current IATA Dangerous Goods Regulations.
IMDG	May be classified under IMDG Code - consult regulations before sea shipment.
UN Number	Consult applicable SDS and transport regulations.

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

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Revision Date	2026-09-11
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: 2026-09-11
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).