Semax

CAS: 80714-61-0
Formula: C37H51N9O10S

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Section 1 — Product and Company Identification

Product Name	Semax
Synonyms	Semax; 80714-61-0; ACTH (4-7), Pro-Gly-Pro-
CAS Number	80714-61-0
Molecular Formula	C37H51N9O10S
IUPAC Name	(2S)-1-[2-[[(2S)-1-[(2S)-2-[[(2S)-2-[[(2S)-2-[[(2S)-2-amino-4-methylsulfanylbutanoyl]amino]-4-carboxybutanoyl]amino]-3-(1H-imidazol-5-yl) propanoyl]amino]-3-phenylpropanoyl]pyrrolidine-2-carbonyl]amino]acetyl]pyrrolidine-2-carboxylic 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
Semax	80714-61-0	C37H51N9O10S	813.9 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 only in areas equipped with adequate general and local exhaust ventilation. Because the toxicological profile of this peptide has not been fully characterized, treat it as a potentially bioactive substance of unknown toxicity and follow the OSHA Laboratory Standard (29 CFR 1910.1450) and the principles of Prudent Practices in the Laboratory (NRC, 2011). Use engineering controls (fume hood, ventilated balance enclosure, or glove box) when weighing or transferring the lyophilized solid to minimize generation of airborne dust. Personnel must wear the personal protective equipment specified in Section 8 (impervious gloves, chemical splash goggles, and a laboratory coat) and follow the hierarchy of controls described by NIOSH. Avoid formation, inhalation, and contact with dust, aerosols, and mists; avoid skin and eye contact and ingestion. Do not eat, drink, smoke, or apply cosmetics in areas where the substance is handled or stored, in accordance with 29 CFR 1910.141. Wash hands and exposed skin thoroughly with soap and water after handling and before breaks and at the end of the workday. Keep containers tightly closed when not in use to prevent moisture uptake; lyophilized peptides are hygroscopic and absorbed moisture promotes solution-phase degradation (general peptide handling guidance). Because the molecule contains a methionine residue, minimize exposure to air and light during weighing and reconstitution; the published peptide-handling literature recommends dissolving and storing methionine-containing peptides in oxygen-free (nitrogen- or argon-purged) water to limit oxidative degradation. Allow sealed containers to equilibrate to ambient temperature before opening to prevent condensation onto the cold

solid. Remove and decontaminate contaminated clothing before reuse. Use good industrial hygiene and housekeeping practices; promptly clean up spills as described in Section 6. Dispose of waste in accordance with Section 13 and applicable federal, state, and local regulations.

Storage Conditions

Store the lyophilized solid in a tightly closed original container, protected from light, moisture, and air, in a cool, dry, well-ventilated area away from incompatible materials (see below) and away from sources of heat, ignition, and direct sunlight. For long-term storage of the dry powder, freezer storage (typically <= -20 degC) is recommended for synthetic peptides; reconstituted solutions are less stable than the lyophilized solid and should be stored refrigerated (2-8 degC) for short-term use or frozen in single-use aliquots to avoid repeated freeze-thaw cycles (general peptide storage guidance; consult the Certificate of Analysis for the specific lot recommendation). Use a desiccated environment and consider purging the headspace with an inert gas (nitrogen or argon) to limit oxidation of the methionine residue and moisture uptake. Keep containers clearly labeled in accordance with OSHA HazCom 2012 (29 CFR 1910.1200(f)). Store separately from foodstuffs, oxidizers, strong acids and bases, and other incompatible chemicals. Restrict access to trained personnel. No specific bulk-storage temperature or shelf-life value is established by an authoritative regulatory body for this substance; follow the manufacturer's Certificate of Analysis for product-specific expiration and re-test dates.

Incompatibilities

Strong oxidizing agents (e.g., peroxides, perchlorates, hypochlorites, nitrates, permanganates) - may oxidize the methionine thioether and histidine/imidazole side chains and cause exothermic decomposition. Strong acids and strong bases - can hydrolyze peptide (amide) bonds and degrade the molecule. Strong reducing agents - may alter side-chain functionality. Moisture/water vapor - the lyophilized solid is hygroscopic; uptake of water accelerates hydrolytic and oxidative degradation. Heat, direct sunlight, and prolonged exposure to air/oxygen - promote oxidation (particularly of the methionine residue) and general decomposition. Hazardous decomposition products on thermal decomposition or combustion may include carbon oxides (CO, CO2), nitrogen oxides (NO), and sulfur oxides (SO), as expected from a sulfur- and nitrogen-containing organic compound (see Section 10).

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 Semax (CAS 80714-61-0). 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 well-ventilated areas. Handle weighing, dissolution, and aliquoting operations inside a certified chemical fume hood, ventilated balance enclosure, or Class I/II biological safety cabinet to minimize generation and inhalation of airborne particulates (dust/aerosols). Where dry powder is manipulated, a HEPA-filtered containment device (e.g., glove box or powder-handling isolator) is preferred. Provide local exhaust ventilation at points of release. Ensure eyewash stations and safety showers are accessible in the immediate work area in accordance with ANSI Z358.1. Maintain good housekeeping; promptly clean spills using HEPA vacuuming or wet methods rather than dry sweeping. Prohibit eating, drinking, and cosmetic application in handling areas (29 CFR 1910.141).

Personal Protective Equipment

Respiratory Protection: Respiratory protection is not normally required when material is handled in a properly functioning fume hood or containment device. If engineering controls are inadequate, or when weighing dry powder or responding to spills/dust generation, use a NIOSH-approved air-purifying respirator with N95 (or higher, e.g., N100/P100) particulate filters as a minimum. For higher-exposure tasks, use a powered air-purifying respirator (PAPR)

with HEPA filters. All respirator use must comply with OSHA 29 CFR 1910.134, including written program, medical clearance, and fit testing.

Hand Protection: Wear chemically resistant, impervious protective gloves compliant with EN ISO 374 / ASTM F739. Nitrile rubber gloves (>=0.11 mm thickness) are recommended for incidental contact; double-glove for prolonged handling of solutions or dry powder. Inspect gloves before use and replace immediately if torn, punctured, or contaminated. Wash hands thoroughly with soap and water after removing gloves. Glove selection should be confirmed with the manufacturer for breakthrough time against aqueous and DMSO/ethanol stock solutions if used.

Eye / Face Protection: Wear tightly fitting safety goggles meeting ANSI/ISEA Z87.1 (or EN 166) whenever the material is handled. A face shield (used in combination with goggles, not as a substitute) is recommended when splash, spray, or generation of airborne particulates is possible, or during weighing of dry powder outside of an enclosure.

Skin Protection: Wear a buttoned, long-sleeved laboratory coat or chemical-resistant lab gown over street clothing, full-length trousers, and closed-toe, closed-heel shoes (chemical-resistant footwear or shoe covers for larger-scale handling). For tasks with significant splash or dust potential, wear a chemical-resistant apron or disposable Tyvek-type coverall. Contaminated clothing should be removed immediately and laundered before reuse; dispose of single-use garments as contaminated chemical waste. Do not wear contaminated PPE outside the designated work area.

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	813.9 g/mol
Molecular Formula	C37H51N9O10S

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: Strong oxidizing agents (e.g., peroxides, perchlorates, hypochlorites, nitrates, permanganates) - may oxidize the methionine thioether and histidine/imidazole side chains and cause exothermic decomposition. Strong acids and strong bases - can hydrolyze peptide (amide) bonds and degrade the molecule. Strong reducing agents - may alter side-chain functionality. Moisture/water vapor - the lyophilized solid is hygroscopic; uptake of water accelerates hydrolytic and oxidative degradation. Heat, direct sunlight, and prolonged exposure to air/oxygen - promote oxidation (particularly of the methionine residue) and general decomposition. Hazardous decomposition products on thermal decomposition or combustion may include carbon oxides (CO, CO2), nitrogen oxides (NO), and sulfur oxides (SO), as expected from a sulfur- and nitrogen-containing organic compound (see Section 10).
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 Semax (CAS 80714-61-0) has not been fully characterized. No reliable oral, dermal, or inhalation LD50/LC50 values for this substance are reported in authoritative sources such as ECHA, NIOSH, the U.S. EPA, or PubChem. Not classified for acute toxicity based on currently available data; hazards cannot be excluded (per GHS Rev.8 S1.3.2.4). Dust or aerosol generated during weighing and handling may produce transient mucous-membrane and respiratory-tract irritation typical of fine organic solids.

Skin Corrosion / Irritation: No experimental skin irritation or corrosion data for Semax have been located in authoritative regulatory databases (ECHA, EPA, PubChem). Not classified for skin corrosion/irritation based on currently available data; hazards cannot be excluded (GHS Rev.8 S1.3.2.4). As a synthetic heptapeptide solid, mechanical and mild chemical irritation of skin upon direct contact cannot be ruled out; treat as a potential irritant and avoid skin contact.

Serious Eye Damage / Irritation: No experimental eye irritation or serious eye damage data for Semax are reported in authoritative sources (ECHA, EPA, PubChem). Not classified for serious eye damage/eye irritation based on currently available data; hazards cannot be excluded (GHS Rev.8 S1.3.2.4). Direct contact of the solid or its solutions with the eye may cause mechanical irritation and transient discomfort; eye protection should be worn during handling.

Skin / Respiratory Sensitization: No data from authoritative sources (ECHA, NIOSH, EPA) regarding respiratory or skin sensitization potential of Semax have been identified. Not classified for respiratory or skin sensitization based on currently available data; hazards cannot be excluded (GHS Rev.8 S1.3.2.4). As with other synthetic peptides containing immunogenic amino-acid sequences, the potential to elicit sensitization in susceptible individuals following repeated occupational exposure cannot be definitively 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: Semax (CAS 80714-61-0) is not listed as a carcinogen by IARC, the U.S. National Toxicology Program (NTP) Report on Carcinogens, OSHA (29 CFR 1910 Subpart Z), the U.S. EPA IRIS database, or ACGIH. No long-term carcinogenicity bioassays have been identified in the peer-reviewed literature. Not classified for carcinogenicity based on currently available data; hazards cannot be excluded (GHS Rev.8 S1.3.2.4).

Reproductive Toxicity: No reproductive or developmental toxicity studies for Semax meeting OECD or equivalent guideline standards have been identified in authoritative sources (ECHA, EPA, NTP-CERHR, PubChem). Not classified for reproductive toxicity or effects on or via lactation based on currently available data; hazards cannot be excluded (GHS Rev.8 S1.3.2.4). As a precaution, pregnant or nursing workers should avoid exposure.

Specific Target Organ Toxicity (STOT): No data are available from authoritative sources (ECHA, NIOSH, EPA) to support classification for Specific Target Organ Toxicity following single exposure (STOT-SE) or repeated exposure (STOT-RE) for Semax. Not classified for STOT-SE or STOT-RE based on currently available data; hazards cannot be excluded (GHS Rev.8 S1.3.2.4). The toxicological profile of this substance is not fully characterized; repeated or prolonged occupational exposure should be minimized in accordance with the precautionary principle and applicable OSHA general-duty obligations under Section 5(a)(1) of the OSH Act.

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) for Semax (CAS 80714-61-0) were identified in authoritative sources including PubChem, ECHA, EPA ECOTOX, or peer-reviewed literature. The substance is not listed on ECHA's Candidate List or in the EPA ECOTOX knowledgebase. Not classified as hazardous to the aquatic environment (acute or chronic) under GHS based on weight-of-evidence assessment, given the absence of identified experimental data and the substance's status as a synthetic heptapeptide analog of ACTH(4-10) used at low quantities in research settings. Release to the environment should nevertheless be avoided as a precautionary measure.

Persistence and Degradability: No substance-specific experimental biodegradation studies (e.g., OECD 301 series ready-biodegradability data) for Semax were identified in PubChem, ECHA, or peer-reviewed literature. Published pharmacokinetic studies (Shevchenko et al., PubMed 15344653) indicate that the Pro-Gly-Pro C-terminal fragment confers enhanced resistance to enzymatic cleavage relative to native ACTH(4-10), but in vivo proteolytic stability is not a substitute for an OECD biodegradation endpoint and no read-across to environmental persistence is made here.

Bioaccumulative Potential: No experimentally determined bioconcentration factor (BCF) or measured log Kow has been identified for Semax in authoritative databases (PubChem, ECHA). Given the high molecular weight (813.9 g/mol), multiple ionizable groups (free amine, carboxylic acids, imidazole) producing a zwitterionic species at environmental pH, and the expected high water solubility characteristic of short peptides, significant bioaccumulation in aquatic organisms is not anticipated; however, this assessment is qualitative in the absence of 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

Prepared By	[illegible] 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).