Minuteman Peptides, LLC

Noopept

CAS: 157115-85-0
Formula: C17H22N2O4

Document ID: e64001d0
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Version: 1.0

Section 1 — Product and Company Identification

Product Name	Noopept
Synonyms	Noopept; 157115-85-0; Omberacetam
CAS Number	157115-85-0
Molecular Formula	C17H22N2O4
IUPAC Name	ethyl 2-[[(2S)-1-(2-phenylacetyl)pyrrolidine-2-carbonyl]amino]acetate
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	Minuteman Peptides, LLC
Address	53 Knox Trail, Suite 200, Acton, MA 01720, US
Phone	978-596-1533
Website	https://minutemanpeptides.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

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: *Not determined*

GHS Pictograms:
None required based on classification.

Hazard Statements

- Not Classified
- Reported as not meeting GHS hazard criteria by 1 of 1 companies. For more detailed information, please visit ECHA C&L website.

Precautionary Statements
Refer to standard laboratory handling precautions for unclassified research chemicals. Follow the PPE and engineering controls specified in Section 8.

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
Noopept	157115-85-0	C17H22N2O4	318.4 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 as a potentially bioactive research chemical of incompletely characterized toxicity. Use only in a well-ventilated area, preferably within a chemical fume hood or equivalent local exhaust ventilation, to minimize the generation and inhalation of dusts, aerosols, or vapors. Personnel should wear appropriate personal protective equipment in accordance with OSHA 29 CFR 1910.132-138, including chemically resistant gloves (e.g., nitrile), safety eyewear meeting ANSI Z87.1, and a laboratory coat; respiratory protection meeting OSHA 29 CFR 1910.134 (e.g., an N95 or higher respirator) should be used if airborne dust may be generated. Avoid contact with skin, eyes, and clothing, and avoid inhalation and ingestion. Do not eat, drink, smoke, or apply cosmetics in areas where the substance is handled or stored. Wash hands and exposed skin thoroughly with soap and water after handling and before leaving the work area. Use good industrial hygiene and housekeeping practices in accordance with the NIOSH guidance for handling pharmaceutical and bioactive powders (NIOSH Publication 2004-165). Ground/bond containers when transferring to prevent static buildup with fine powders. Keep containers tightly closed when not in use to limit exposure to atmospheric moisture and to prevent dust release. Decontaminate work surfaces and reusable equipment after use.

Storage Conditions
Store in the original tightly closed container in a cool, dry, well-ventilated area away from direct sunlight and incompatible materials. Protect from moisture, heat, and ignition sources. As an amide/ester-containing organic compound, the substance should be kept under inert, desiccated conditions where prolonged storage is required; storage at reduced temperature (e.g., refrigerated at 2-8 degC, or frozen at -20 degC for long-term storage) under a dry inert atmosphere is appropriate for laboratory quantities to limit hydrolytic and oxidative degradation. Keep container properly labeled in accordance with OSHA HazCom 2012 (29 CFR 1910.1200(f)). Store separately from foodstuffs, oxidizers, strong acids,

and strong bases. Restrict access to trained personnel. Storage areas should be equipped with secondary containment and spill-control materials as recommended in OSHA 29 CFR 1910.1450 for laboratory chemicals.

Incompatibilities

Avoid contact with strong oxidizing agents, strong acids, and strong bases, which may attack the amide and ethyl ester functional groups and promote hydrolysis or other decomposition. Avoid prolonged exposure to moisture, which can hydrolyze the ester linkage, and to elevated temperatures, which can accelerate degradation. Protect from direct sunlight and UV light. Hazardous decomposition products, per general guidance in the NIOSH Pocket Guide for nitrogen-containing organics, may include carbon oxides (CO, CO2) and nitrogen oxides (NOx) upon thermal decomposition or combustion.

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 weighing, transfer, and open-handling operations of the dry powder inside a certified ventilated enclosure such as a chemical fume hood, ventilated balance enclosure, or Class I/II biological safety cabinet to prevent generation and inhalation of airborne dust. For larger-scale or routine operations, use closed handling systems, local exhaust ventilation, or glove boxes/isolators consistent with good practice for handling active pharmaceutical ingredients (APIs) of unknown potency. Provide readily accessible eyewash stations and safety showers in the work area in accordance with ANSI Z358.1. Maintain good industrial hygiene practices: prohibit eating, drinking, smoking, and the storage of food in work areas; wash hands and exposed skin thoroughly after handling and before breaks. Decontaminate work surfaces and equipment after use.

Personal Protective Equipment

Respiratory Protection: Where engineering controls are sufficient to keep airborne concentrations below detectable/-nuisance levels, respiratory protection is not normally required. If dust, mist, or aerosol may be generated outside containment, use a NIOSH-approved air-purifying respirator with N95 (or higher, e.g., N100/P100) particulate filters at a minimum. For tasks with higher exposure potential, or where the airborne concentration is unknown, use a NIOSH-approved powered air-purifying respirator (PAPR) with HEPA filters or a supplied-air respirator. Respirator selection, fit testing, and use must comply with OSHA 29 CFR 1910.134.

Hand Protection: Wear chemically resistant, impervious protective gloves conforming to EN 374 / ANSI/ISEA 105. Nitrile gloves of adequate thickness (>=0.11 mm) are generally suitable for incidental contact; double-gloving is recommended for prolonged handling of the neat powder or concentrated solutions. Inspect gloves before use, replace immediately if torn, punctured, or contaminated, and wash hands thoroughly after removal. Breakthrough times specific to this substance have not been established; select gloves based on manufacturer permeation data for the 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 full-face shield worn over goggles is recommended when there is a potential for splashing, spraying, or generation of airborne dust outside containment. Do not wear contact lenses when handling this material.

Skin Protection: Wear a laboratory coat or chemical-resistant long-sleeved garment, full-length trousers, and closed-toe chemical-resistant footwear to minimize skin contact. For operations with significant splash or dust-release potential, wear a chemical-resistant apron or disposable coverall (e.g., Tyvek) over the lab coat. Remove and

decontaminate or dispose of contaminated clothing promptly; do not take contaminated clothing home. Launder reusable garments separately from street clothing.

Section 9 — Physical and Chemical Properties

Physical State	Solid (research-grade lyophilised powder or crystalline solid)
Appearance	White to off-white crystalline powder
Odor	Odorless
Odor Threshold	Not available.
Boiling Point	*Not determined*
Melting Point	*Not determined*
Flash Point	*Not determined*
Auto-ignition Temperature	No data available.
Decomposition Temperature	No experimental data available.
Vapor Pressure	*Not determined*
Vapor Density	*Not determined*
Specific Gravity	*Not determined*
Partition Coefficient (log Kow)	No experimental data available.
Solubility	Slightly soluble in water; soluble in DMSO and ethanol
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	318.4 g/mol
Molecular Formula	C17H22N2O4

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, strong acids, and strong bases, which may attack the amide and ethyl ester functional groups and promote hydrolysis or other decomposition. Avoid prolonged exposure to moisture, which can hydrolyze the ester linkage, and to elevated temperatures, which can accelerate degradation. Protect from direct sunlight and UV light. Hazardous decomposition products, per general guidance in the NIOSH Pocket Guide for nitrogen-containing organics, may include carbon oxides (CO, CO2) and nitrogen oxides (NOx) upon thermal decomposition or combustion.

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

Hazardous Polymerization: Will not occur.

Section 11 — Toxicological Information

The toxicological properties of this substance have not been fully characterized. Where no authoritative study data was identified, endpoint classifications are based on a weight-of-evidence approach using read-across from the compound's chemical class and

structural features, per GHS Rev.8 Chapter 1.3.2.4. "Not classified" entries below mean "not classified based on currently available data" — hazards cannot be excluded.

Acute Toxicity: Acute toxicity data for Noopept (CAS 157115-85-0) are limited and the toxicological profile is not fully characterized. A preclinical investigation (Ostrovskaya et al., Eksp. Klin. Farmakol., 2002; PMID 12025790) administered Noopept perorally to rabbits at 10 or 100 mg/kg/day over 6 months without producing overt chronic toxicity, but no validated OECD-guideline acute oral, dermal, or inhalation LD50/LC50 values from authoritative regulatory bodies (ECHA, NIOSH, EPA) are available. The substance is not listed in the NIOSH RTECS database with established acute toxicity values, and no OSHA PEL, ACGIH TLV, or NIOSH REL has been established. Not classified for acute toxicity based on currently available data; hazards cannot be excluded (GHS Rev.8 S1.3.2.4). Treat as potentially harmful by oral, dermal, and inhalation routes; avoid generation of dusts or aerosols.

Skin Corrosion / Irritation: No validated in vivo or in vitro skin corrosion/irritation studies (e.g., OECD TG 404, 431, 439) for Noopept are available from ECHA, EPA, or peer-reviewed literature. The substance is not listed with a harmonized classification in the ECHA C&L Inventory for skin corrosion/irritation. Not classified for skin corrosion/-irritation based on currently available data; hazards cannot be excluded (GHS Rev.8 S1.3.2.4). As a fine organic solid, mechanical irritation of the skin is plausible on direct contact; handle with chemically resistant gloves.

Serious Eye Damage / Irritation: No validated in vivo or in vitro serious eye damage/irritation studies (e.g., OECD TG 405, 437, 438, 492) for Noopept are available from ECHA, EPA, or the peer-reviewed literature. The substance has no harmonized classification in the ECHA C&L Inventory for eye effects. Not classified for serious eye damage/eye irritation based on currently available data; hazards cannot be excluded (GHS Rev.8 S1.3.2.4). Particulates of any organic solid can cause mechanical irritation of the conjunctiva and cornea; use appropriate eye protection.

Skin / Respiratory Sensitization: No respiratory or skin sensitization studies (e.g., OECD TG 406, 429, 442A-E) for Noopept have been identified in ECHA dossiers or peer-reviewed sources. The substance is not listed as a sensitizer in the ECHA C&L Inventory or by NIOSH. Not classified for respiratory or skin sensitization based on currently available data; hazards cannot be excluded (GHS Rev.8 S1.3.2.4). The sensitization potential of this substance is not fully characterized; minimize dermal and inhalation exposure.

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: Noopept (CAS 157115-85-0) 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 categories. No long-term rodent carcinogenicity bioassays meeting OECD TG 451/453 have been reported 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). The carcinogenic potential is not fully characterized.

Reproductive Toxicity: No OECD-guideline reproductive or developmental toxicity studies (TG 414, 416, 421, 422, 443) for Noopept are available in ECHA dossiers or the peer-reviewed literature, and the substance is not listed on the California Proposition 65 list or in the ECHA Candidate List for reproductive toxicity. Not classified for reproductive toxicity, developmental toxicity, or effects on/via lactation based on currently available data; hazards cannot be excluded (GHS Rev.8 S1.3.2.4). The reproductive and developmental toxicity profile is not fully characterized; women who are pregnant, planning pregnancy, or nursing should avoid exposure as a precaution.

Specific Target Organ Toxicity (STOT): No specific target organ toxicity has been identified for Noopept (CAS 157115-85-0) under either single-exposure (STOT-SE) or repeated-exposure (STOT-RE) scenarios from authoritative sources. The 6-month repeated-dose oral study in rabbits at 10 and 100 mg/kg/day reported by Ostrovskaya et al. (Eksp. Klin. Farmakol., 2002; PMID 12025790) did not establish a STOT-RE classification, and no harmonized STOT classification appears in the ECHA C&L Inventory. No OSHA PEL, NIOSH REL, or ACGIH TLV has been established. 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 repeated-exposure target-organ profile in humans is not fully characterized; minimize occupational exposure by all routes.

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 Noopept (CAS 157115-85-0) were identified in authoritative sources reviewed (PubChem CID 180496, U.S. EPA CompTox Chemicals Dashboard DTXSID80166214, ECHA). 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 Noopept is a pharmacologically active small molecule (a dipeptide-mimetic neuropeptide analog), release to surface waters, sewers, soil, or the environment should be avoided as a precaution.

Persistence and Degradability: No substance-specific ready biodegradability (e.g., OECD 301 series) or hydrolysis/-photolysis half-life data for Noopept were identified in authoritative sources reviewed (PubChem, U.S. EPA CompTox, ECHA). The molecule contains hydrolyzable ethyl ester and amide functional groups that may be susceptible to abiotic and enzymatic hydrolysis under environmental conditions, but no experimental degradation study is cited here. A definitive persistence classification cannot be assigned in the absence of authoritative experimental data.

Bioaccumulative Potential: No experimentally determined bioconcentration factor (BCF) or measured log Kow for Noopept was identified in authoritative sources reviewed (PubChem CID 180496, U.S. EPA CompTox Dashboard DTXSID80166214, ECHA). In the absence of an experimental BCF >= 500 or measured log Kow >= 4 (GHS Annex 9 criteria for bioaccumulation potential), the substance is not classified as bioaccumulative on a weight-of-evidence basis; this assessment should be revised if substance-specific experimental data become available.

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	e64001d0-b95b-4d1f-afa4-0ded4c973157
Revision Date	2026-07-18
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: 2026-07-18
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).