

AP AMERICAN PEPTIDES

RESEARCH-GRADE PEPTIDES · INDEPENDENTLY VERIFIED

SAFETY DATA SHEET

PREPARED PER OSHA HAZCOM 2012 · 29 CFR 1910.1200 · GHS

SemaxDOCUMENT **SDS-AP-SEMEX** | VERSION **1.0**ISSUED **06 JULY 2026** | SUPERSEDES **NONE** | REVIEW **ANNUALLY****SUBSTANCE IDENTITY**

| | |
|-------------------|--|
| CAS NO. | 80714-61-0 |
| MOLECULAR FORMULA | C ₃₇ H ₅₁ N ₉ O ₁₀ S |
| MOLECULAR WEIGHT | 813.92 g/mol |
| APPEARANCE | White to off-white lyophilized powder |
| PURITY | ≥ 99% (RP-HPLC) |

AMINO-ACID SEQUENCE

H-Met-Glu-His-Phe-Pro-Gly-Pro-OH

NOT CLASSIFIED AS HAZARDOUS

Does not meet GHS classification criteria (OSHA HazCom 2012). No signal word, hazard pictogram, or hazard statement required. Handle per good laboratory practice — see Sections 7 & 8.

**HMIS® III RATING**

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| HEALTH | 1 |
| FLAMMABILITY | 0 |
| PHYS. HAZARD | 0 |
| NFPA 704: Health 1 · Flammability 0 · Reactivity 0 | |

1 Identification

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| PRODUCT IDENTIFIER | Semax — research peptide, lyophilized powder |
| SYNONYMS | ACTH(4-7) analogue |
| PRODUCT CODE | AP-SEMEX |
| RECOMMENDED USE | Research Use Only (RUO) — laboratory research, analytical, and scientific applications. |
| USES ADVISED AGAINST | Not for human or veterinary use; not a drug, food, cosmetic, dietary supplement, or household product; not for diagnostic or therapeutic use. |
| SUPPLIER | American Peptides · 9742 St. Vincent Ave, Shreveport, LA 71106, USA · americanpeptides.us · support@americanpeptides.us |
| EMERGENCY TELEPHONE | U.S. Poison Control Center: 1-800-222-1222 (24-hour). For chemical spill/transport emergencies, contact your regional emergency-response service. |

2 Hazard(s) Identification

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| GHS CLASSIFICATION | Not classified as a hazardous substance or mixture per OSHA HazCom 2012 (29 CFR 1910.1200) / GHS. |
| SIGNAL WORD | None |
| PICTOGRAMS | None required |
| HAZARD STATEMENTS | None |
| PRECAUTIONARY (GLP) | P262 avoid eye/skin/clothing contact P270 no eating/drinking/smoking P280 wear gloves & eye protection P501 dispose per regulations |
| OTHER HAZARDS | Toxicological properties have not been fully investigated. May be harmful if inhaled, swallowed, or absorbed through skin. Avoid formation and inhalation of dust. Not assessed as PBT or vPvB. |

3 Composition / Information on Ingredients

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| SUBSTANCE TYPE | Single substance (synthetic peptide) |
| CHEMICAL NAME | Semax (ACTH(4-7) analogue) |
| CAS NO. / EC NO. | 80714-61-0 / not assigned |
| MOLECULAR FORMULA | C ₃₇ H ₅₁ N ₉ O ₁₀ S · MW 813.92 g/mol |
| CONCENTRATION | ≥ 99% (RP-HPLC); balance: residual synthesis salts/moisture |
| HAZARDOUS IMPURITIES | None present at reportable concentrations |

4 First-Aid Measures

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| INHALATION | Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration. Get medical attention if symptoms occur. |
| SKIN CONTACT | Wash with plenty of soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists. |
| EYE CONTACT | Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Get medical attention if irritation persists. |
| INGESTION | Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention. |
| SYMPTOMS / EFFECTS | <i>No specific data available; symptoms of overexposure are not established.</i> |
| NOTE TO PHYSICIAN | Treat symptomatically. Contact U.S. Poison Control (1-800-222-1222). |

5 Fire-Fighting Measures

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| SUITABLE MEDIA | Water spray, dry chemical, carbon dioxide (CO ₂), or alcohol-resistant foam. |
| UNSUITABLE MEDIA | None known. |
| SPECIAL HAZARDS | Thermal decomposition may release carbon oxides (CO, CO ₂) and nitrogen oxides (NO _x). |
| ADVICE FOR FIREFIGHTERS | Wear self-contained breathing apparatus (SCBA) and full protective equipment. |

6 Accidental Release Measures

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| PERSONAL PRECAUTIONS | Wear appropriate PPE (Section 8). Avoid dust formation and inhalation. Ensure adequate ventilation. |
| ENVIRONMENTAL PRECAUTIONS | Prevent entry into drains, waterways, and soil. |
| CONTAINMENT & CLEANUP | Collect using dust-suppressing methods; place in a sealed, labeled container for disposal. Avoid generating airborne dust. Clean the affected surface after removal. |

7 Handling and Storage

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| SAFE HANDLING | Use only in a well-ventilated area or under a fume hood / laminar-flow enclosure. Wear PPE. Avoid contact with skin, eyes, and clothing; avoid inhalation and ingestion. Follow Good Laboratory Practice (GLP). Wash hands thoroughly after handling. |
| STORAGE CONDITIONS | Store the lyophilized powder tightly sealed at -20 °C , protected from light and moisture. Avoid repeated freeze-thaw of reconstituted solutions; prepare fresh and store cold. Keep away from incompatible materials (Section 10). |
| SHELF LIFE | Per batch Certificate of Analysis — verify at americanpeptides.us/pages/coa . |

8 Exposure Controls / Personal Protection

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| EXPOSURE LIMITS | No occupational exposure limits (OEL / PEL / TLV) have been established for this substance. |
| ENGINEERING CONTROLS | Adequate general ventilation; handle under a fume hood where dust may be generated. Provide accessible eyewash station and safety shower. |
| EYE / FACE | Safety glasses or goggles (ANSI Z87.1 / EN166). |
| SKIN / BODY | Nitrile gloves; laboratory coat. |
| RESPIRATORY | If dust is generated, wear a NIOSH-approved N95 (or better) respirator. |

9 Physical and Chemical Properties

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| APPEARANCE | White to off-white lyophilized powder (solid) | SOLUBILITY | Soluble in water & aqueous buffers; soluble in DMSO |
| ODOR | Odorless / <i>no data</i> | LOG P _{OW} | <i>No data</i> |
| PH | <i>No data</i> (dilute aqueous ≈ neutral) | AUTOIGNITION | <i>No data</i> |
| MELTING POINT | <i>No data</i> | DECOMP. TEMP. | <i>No data</i> |
| BOILING POINT | Not applicable (decomposes) | PHYSICAL STATE | Solid |
| FLASH POINT | Not applicable | MOLECULAR FORMULA | C ₃₇ H ₅₁ N ₉ O ₁₀ S |
| FLAMMABILITY | Not flammable | MOLECULAR WEIGHT | 813.92 g/mol |
| VAPOR PRESSURE | Negligible | | |

10 Stability and Reactivity

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| REACTIVITY | Not reactive under normal conditions of use and storage. |
| CHEMICAL STABILITY | Stable as a lyophilized powder under recommended storage. Reconstituted solutions are less stable — keep cold and use promptly. |
| HAZARDOUS REACTIONS | None known; will not undergo hazardous polymerization. |
| CONDITIONS TO AVOID | Heat, moisture, direct light, and repeated freeze-thaw cycles. |
| INCOMPATIBLE MATERIALS | Strong oxidizing agents; strong acids and bases. |
| DECOMPOSITION PRODUCTS | Carbon oxides (CO, CO ₂) and nitrogen oxides (NO _x) on thermal decomposition. |

11 Toxicological Information

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|-----------------------|--|-------------------|----------------------------------|
| ACUTE TOXICITY | <i>No data</i> — LD ₅₀ /LC ₅₀ not determined | MUTAGENICITY | <i>No data</i> |
| SKIN CORROSION/IRRIT. | <i>No data</i> | CARCINOGENICITY | Not listed by IARC, NTP, or OSHA |
| EYE DAMAGE/IRRIT. | <i>No data</i> | REPRODUCTIVE TOX. | <i>No data</i> |
| SENSITIZATION | <i>No data</i> | STOT / ASPIRATION | <i>No data</i> |

This product is supplied for research use only; its toxicological properties have not been thoroughly investigated. Handle as a substance of unknown toxicity.

12 Ecological Information

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|---------------------|----------------|-----------------|---|
| ECOTOXICITY | <i>No data</i> | BIOACCUMULATION | <i>No data</i> |
| PERSISTENCE/DEGRAD. | <i>No data</i> | MOBILITY / PBT | Not assessed — avoid release to the environment |

13 Disposal Considerations

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| WASTE TREATMENT | Dispose of contents and container in accordance with local, state, and federal regulations. Do not discharge into drains, waterways, or the environment. Where required, use a licensed waste-disposal contractor. |
| CONTAMINATED PACKAGING | Dispose of as unused product. |

14 Transport Information

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| DOT / IATA / IMDG | Not regulated as dangerous goods. |
| UN NUMBER | None |
| PROPER SHIPPING NAME | Not applicable |
| HAZARD CLASS / PG | None / None |
| ENVIRONMENTAL HAZARDS | None known |
| SPECIAL PRECAUTIONS | Maintain cold-chain during transport where required to preserve product integrity. |

15 Regulatory Information

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| PRODUCT STATUS | Research Use Only (RUO). Not approved by the U.S. FDA. Not intended for human or veterinary use, nor for use as a drug, food, dietary supplement, cosmetic, or household product. |
| TSCA (US) | Used for research and development; not for general commercial distribution as a chemical substance. |
| SARA 311/312 | No applicable hazard categories |
| CALIFORNIA PROP 65 | No listed components known to the State of California to cause cancer or reproductive harm |
| STANDARD APPLIED | Prepared in accordance with OSHA HazCom 2012 (29 CFR 1910.1200) and GHS. |

16 Other Information

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|----------------------|--|
| DATE OF ISSUE | 06 July 2026 · Version 1.0 · Supersedes: None |
| HAZARD RATINGS | NFPA 704 — Health 1, Flammability 0, Reactivity 0. HMIS III — Health 1, Flammability 0, Physical Hazard 0. |
| KEY TO ABBREVIATIONS | GHS Globally Harmonized System · RUO Research Use Only · GLP Good Laboratory Practice · OEL/PEL/TLV Occupational Exposure Limit / Permissible Exposure Limit / Threshold Limit Value · PBT/vPvB Persistent-Bioaccumulative-Toxic / very Persistent very Bioaccumulative · SCBA Self-Contained Breathing Apparatus · No data = information not available. |

Disclaimer. The information in this Safety Data Sheet is provided in good faith and believed to be accurate as of the date of issue. It relates only to the specific material identified and to research-use-only conditions; it may not be valid if the material is used in combination with any other materials or in any process not described herein. Because conditions of use are outside our control, American Peptides makes no warranty, express or implied, and assumes no liability in connection with any use of this information. The user is responsible for determining suitability and for ensuring safe handling, storage, use, and disposal in compliance with all applicable laws and regulations. This document does not constitute a specification; batch-specific data is provided on the Certificate of Analysis.