RESEARCH USE ONLY

LOTI LABS

# Delta Sleep-Inducing Peptide

Safety Data Sheet

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|---|---|
| **CAS** | 62568-57-4 |
| **Formula** | C35H48N10O15 |
| **Molecular weight** | 848.8 g/mol |
| **DOCUMENT ID** | LL-SDS-DELTASLEEPINDUCING-001 |
| **REVISION DATE** | 2026-10-22 |
| **VERSION** | 1.8 |

## 01. Identification

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| **Product identifier** | Delta Sleep-Inducing Peptide |
| **Other means of identification** | Delta Sleep-Inducing Peptide; PubChem CID 68816. Loti Labs catalog listing(s) covered by this SDS: DSIP (Delta Sleep Inducing Peptide) 2mg. |
| **CAS number** | 62568-57-4 |
| **Molecular formula** | C35H48N10O15 |
| **Sequence** | Trp-Ala-Gly-Gly-Asp-Ala-Ser-Gly-Glu (WAGGDASGE), the published delta sleep-inducing peptide (DSIP) nonapeptide sequence. The published sequence is stated as the parent-substance identity; the lot Certificate of Analysis controls lot-specific identity. |
| **IUPAC name** | (2S)-2-[[2-[[(2S)-2-[[(2S)-2-[[(2S)-2-[[2-[[2-[[(2S)-2-[[(2S)-2-amino-3-(1H-indol-3-yl)propanoyl]amino]propanoyl]amino]acetyl]amino]acetyl]amino]-3-carboxypropanoyl]amino]propanoyl]amino]-3-hydroxypropanoyl]amino]acetyl]amino]pentanedioic acid |
| **Recommended use** | Research laboratory chemical for in-vitro scientific research and development. |
| **Restrictions on use** | Not for human or veterinary use. Not for food, drug, cosmetic, household, agricultural, clinical, therapeutic, or diagnostic applications. |

Supplier details

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| **Company** | Loti Labs |
| **Address** | 1204 S Broad St, Brooksville, FL 34601, United States |
| **Telephone** | 877-LOTI-LAB |
| **Website** | https://lotilabs.com/ |
| **Emergency contact** | CHEMTREC |
| **Emergency phone** | 800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 hours/day; 7 days/week |

## 02. Hazard(s) identification

OSHA classification Not classified as hazardous under the OSHA Hazard Communication Standard based on currently available information. Substance-specific hazard data are limited; the absence of classification must not be interpreted as proof that no hazard exists.

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| **Signal word** | None required |
| **Hazard pictograms** | None required |
| **Hazard statements** | None required by current classification |
| **Hazards not otherwise classified** | Toxicological properties have not been fully investigated. Fine powder may cause mechanical irritation. Treat as a potentially bioactive substance of unknown toxicity. |
| **Unknown acute toxicity** | No quantitative oral, dermal, or inhalation acute-toxicity data identified. |

Precautionary statements · prudent laboratory practice

P261 Avoid breathing dust or aerosols.

P264 Wash hands and exposed skin thoroughly after handling.

P280 Wear protective gloves, protective clothing, and eye protection.

P501 Dispose of contents/container in accordance with applicable regulations.

These are supplemental safe-handling statements for this product, which is not assigned a GHS hazard class on the reviewed evidence.

## 03. Composition / information on ingredients

| Component | CAS | Formula | MW | Concentration |
|---|---|---|---|---|
| **Delta Sleep-Inducing Peptide parent peptide** | 62568-57-4 | C35H48N10O15 | 848.8 g/mol | Research-grade lyophilized peptide; the batch COA reports identity, HPLC purity and peptide content; the counter-ion form is not reported on the COA |

This SDS describes the parent-peptide identity shown in the composition table. Lot-specific identity, purity and peptide content are documented on the batch Certificate of Analysis; counter-ion, water and residual-solvent content are not reported on the COA. No excipients or stabilizers are intentionally added to the supplied lyophilized peptide.

## 04. First-aid measures

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| **Inhalation** | Move person to fresh air. Keep at rest. Obtain medical advice if symptoms develop or persist. |
| **Skin contact** | Remove contaminated clothing. Wash thoroughly with soap and water. Seek medical advice if irritation develops. |
| **Eye contact** | Rinse cautiously with water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Obtain medical attention if irritation persists. |
| **Ingestion** | Rinse mouth. Do not induce vomiting unless directed by medical personnel. Contact a poison center or physician if swallowed or symptoms occur. |
| **Most important symptoms/effects** | No substance-specific clinical data available. Exposure may cause mechanical irritation. |
| **Immediate medical attention** | Treat symptomatically. No specific antidote known. |

## 05. Fire-fighting measures

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| **Suitable extinguishing media** | Water spray, dry chemical, carbon dioxide, or foam appropriate to the surrounding fire. |
| **Unsuitable extinguishing media** | No substance-specific restriction identified. Avoid methods that disperse dust. |
| **Specific hazards** | Organic nitrogen-containing solid. Thermal decomposition may generate carbon oxides and nitrogen oxides. |
| **Protective equipment** | Firefighters should wear full protective equipment and positive-pressure self-contained breathing apparatus. |

## 06. Accidental release measures

Personal precautions

Restrict access. Avoid dust formation and all contact. Ensure adequate ventilation. Wear PPE described in Section 8.

Environmental precautions

Prevent release to drains, sewers, surface water, and soil.

Containment and cleanup

Gently collect without raising dust using suitable tools or a HEPA-filtered vacuum. Place in a sealed, labeled container. Clean affected surfaces and dispose of waste in accordance with Section 13.

## 07. Handling and storage

Precautions for safe handling

Handle as a potentially bioactive research substance of unknown toxicity. Conduct weighing, transfer, and reconstitution in a certified chemical fume hood, ventilated balance enclosure, or other effective containment. Avoid generating or breathing dust or aerosols. Avoid eye, skin, and clothing contact. Do not eat, drink, smoke, or apply cosmetics in work areas. Wash thoroughly after handling. Keep containers closed when not in use.

Storage conditions

Store tightly closed, dry, and protected from light and moisture. For the lyophilized material, follow the storage condition shown on the product label. Long-term storage of dry peptides is commonly at −20 °C or colder; do not assign a shelf life beyond supplier documentation. Allow a cold vial to equilibrate to room temperature before opening to reduce condensation. Aliquot reconstituted solutions to minimize freeze to thaw cycles.

Incompatibilities

Strong oxidizing agents, strong acids, strong bases, excessive heat, moisture, direct sunlight, and ultraviolet light.

## 08. Exposure controls / personal protection

Occupational exposure limits

No OSHA PEL, NIOSH REL, or ACGIH TLV identified for Delta Sleep-Inducing Peptide. Maintain exposure as low as reasonably achievable.

Engineering controls

Use local exhaust ventilation or a certified containment device for open handling of powder. Larger-scale work should use closed transfer or glovebox/isolator controls. Provide an accessible eyewash and safety shower. Apply the hierarchy of controls required by site risk assessment.

Personal protective equipment

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| **Eye / face protection** | Safety glasses with side shields as a minimum; chemical splash goggles for dust, aerosol, or splash-generating tasks. Face shield over goggles where significant splash potential exists. |
| **Hand protection** | Disposable nitrile gloves suitable for dry-solid handling. Inspect before use; change immediately if contaminated, damaged, or degraded. Consider double gloves for neat powder. |
| **Skin protection** | Laboratory coat, long trousers, and closed-toe footwear. Add a chemical-resistant apron or disposable coverall for higher-exposure work. |
| **Respiratory protection** | Normally unnecessary inside effective containment. If engineering controls cannot prevent airborne particulate exposure, use a NIOSH-approved particulate respirator under a compliant respiratory-protection program (29 CFR 1910.134). |
| **Hygiene** | Wash hands after handling and before breaks. Remove contaminated clothing. Decontaminate work surfaces and equipment. |

PPE must be selected by the employer based on task-specific hazard assessment, quantity, physical form, and exposure potential.

## 09. Physical and chemical properties

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| **Physical state** | Solid |
| **Appearance** | Lyophilized solid. |
| **Color** | White (batch COA sample description: “White lyophilized powder”). |
| **Odor / odor threshold** | No reliable substance-specific data available |
| **Melting point / freezing point** | No reliable data available |
| **Boiling point / range** | Not applicable / decomposes; no reliable data available |
| **Flammability** | No reliable data available |
| **Lower / upper explosion limit** | No reliable data available |
| **Flash point** | Not applicable (solid) |
| **Auto-ignition temperature** | No reliable data available |
| **Decomposition temperature** | No reliable data available |
| **pH** | Not applicable (dry solid) |
| **Kinematic viscosity** | Not applicable to solid |
| **Solubility** | No product-specific measured solubility data available |
| **Partition coefficient (n-octanol/ water)** | No experimental data available |
| **Vapor pressure** | Not determined |
| **Evaporation rate** | Not applicable (non-volatile solid). |
| **Vapor density** | Not determined |
| **Specific gravity / relative density** | Not determined |

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| **Particle characteristics** | No lot-specific particle-size data available |
| **Molecular weight** | 848.8 g/mol |
| **Molecular formula** | C35H48N10O15 |
| **Stability in solution** | Subject to hydrolytic and oxidative degradation typical of peptides. Protect from light and microbial contamination; use a laboratory-established stability period for the prepared solution. |

Physicochemical summary: non-volatile solid with negligible vapor pressure; a sharp melting point is typically not observed because the material chars or decomposes on heating. Flash point and pH are not applicable to the dry solid. Solution pH depends on concentration and buffer.

## 10. Stability and reactivity

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| **Reactivity** | No dangerous reaction known under recommended handling and storage conditions. |
| **Chemical stability** | Expected to be stable as dry material when stored as directed; peptide may undergo hydrolytic or oxidative degradation. |
| **Possibility of hazardous reactions** | Hazardous polymerization is not expected. |
| **Conditions to avoid** | Heat, moisture, direct sunlight, UV exposure, dust generation, and prolonged exposure to air. |
| **Incompatible materials** | Strong oxidizers, strong acids, and strong bases. |
| **Hazardous decomposition products** | Carbon monoxide, carbon dioxide, nitrogen oxides, and other irritating or toxic fumes under fire or thermal decomposition conditions. |

## 11. Toxicological information

Data limitation: The toxicological properties of Delta Sleep-Inducing Peptide have not been fully characterized. Where an endpoint is marked “Not classified”, the available evidence does not meet OSHA/GHS classification criteria; this does not establish absence of hazard.

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| **Likely routes of exposure** | Inhalation, eye contact, skin contact, and ingestion. |
| **Acute toxicity** | No reliable quantitative oral, dermal, or inhalation $LD_{50}$/$LC_{50}$ data identified. Not classified based on available data. |
| **Skin corrosion / irritation** | No reliable standardized test data identified. Not classified based on available data; mechanical or nonspecific irritation cannot be excluded. |
| **Serious eye damage / irritation** | No reliable standardized test data identified. Fine powder may mechanically irritate eyes. |
| **Respiratory / skin sensitization** | No reliable substance-specific data identified. Sensitization cannot be excluded. |

## 11. Toxicological information · continued

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| **Germ cell mutagenicity** | No reliable substance-specific data identified. Not classified based on available data. |
| **Carcinogenicity** | Not listed as a carcinogen by IARC, NTP, or OSHA. Absence from these lists is not evidence of no carcinogenic potential. |

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| **Reproductive toxicity** | No reliable substance-specific reproductive or developmental toxicity data identified. Not classified based on available data. |
| **STOT, single exposure** | No reliable substance-specific data identified. Not classified based on available data. |
| **STOT, repeated exposure** | No reliable substance-specific data identified. Not classified based on available data. |
| **Aspiration hazard** | Not applicable to the supplied solid under normal conditions. |
| **Symptoms related to characteristics** | No substance-specific symptoms established. Dust may cause mechanical irritation. |
| **Delayed / immediate / chronic effects** | Unknown; data are insufficient. |
| **Numerical measures of toxicity** | No reliable numerical toxicity values available. |
| **Interactive effects** | No information on interactive effects was identified. |
| **Alternative information / method** | No read-across or structure-activity (SAR) information from other chemicals was used; where substance-specific data are unavailable this is stated for each endpoint. |
| **Derived no-effect level (DNEL)** | No substance-specific DNEL has been derived. |
| **Predicted no-effect concentration (PNEC)** | No substance-specific PNEC has been derived. |

## 12. Ecological information

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| **Ecotoxicity** | No reliable substance-specific fish, aquatic invertebrate, or algae toxicity data identified. Avoid environmental release. |
| **Persistence / degradability** | No reliable substance-specific biodegradation data identified. Peptide bonds may undergo environmental degradation; rate and products are unknown. |
| **Bioaccumulative potential** | No measured BCF or log Kow is available. Multiple ionizable groups and high polarity support low expected passive bioaccumulation; no bioaccumulation classification is assigned. |
| **Mobility in soil** | No reliable data available. |
| **Other adverse effects** | No reliable data available. |

Sections 12 to 15 are included for completeness; OSHA does not enforce their substantive content under Appendix D of 29 CFR 1910.1200.

Peptide bonds are expected to hydrolyze in the environment, but the rate depends on environmental conditions.

## 13. Disposal considerations

Waste treatment

Dispose of material, contaminated PPE, and containers through a licensed waste contractor in accordance with federal, state, and local requirements. Do not discharge to drains, sewers, or waterways. Do not reuse empty containers. The waste generator is responsible for determining whether the waste meets hazardous-waste criteria at the time of disposal.

## 14. Transport information

| Framework | UN number | Proper shipping name | Class | Packing group |
|---|---|---|---|---|
| **U.S. DOT** | Not assigned | Not regulated as dangerous goods* | , | |
| **IATA** | Not assigned | Not regulated as dangerous goods* | , | |
| **IMDG** | Not assigned | Not regulated as dangerous goods* | , | |

*Based on current intrinsic-hazard information for the parent substance. The stated transport classification applies to the supplied material; quantity-, packaging-, carrier-, and mode-specific consignment requirements apply at shipment.

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| **Environmental hazards** | Not listed as a marine pollutant (49 CFR 172.101 Appendix B; IMDG Code). No aquatic-toxicity data meeting the UN environmentally hazardous substance criteria were identified for the product. |
| **Transport in bulk** | Not applicable. The product is supplied in non-bulk packagings and is not transported in bulk under IMO instruments (MARPOL Annex II / IBC Code). |
| **Special precautions** | Protect from heat, moisture, light, and physical damage. Maintain required product-label storage conditions. |

Transport determination: this solid product does not meet the criteria of a U.S. DOT, IATA or IMDG dangerous-goods class and is not regulated as dangerous goods in the supplied form.

## 15. Regulatory information

Jurisdiction: this SDS is prepared for supply and use in the United States under the OSHA Hazard Communication Standard (29 CFR 1910.1200). Active ingredient CAS number(s) assessed: 62568-57-4. U.S. TSCA: no exact CAS match on that public inventory (62568-57-4); confidential identities are not visible in the public file. California Proposition 65: no exact active-ingredient CAS match on the official list dated July 31, 2026. CERCLA/SARA: no listed component was identified under 40 CFR 302.4 or 40 CFR 372.65 in the reviewed public records; threshold and release-reporting duties remain quantity- and use-dependent. Sources checked: EPA TSCA non-confidential Inventory (July 2026), OEHHA Proposition 65 list (July 31, 2026), 40 CFR 302.4 and 40 CFR 372.65. Public-inventory status is not product approval or authorization.

## 16. Other information

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| **Document ID** | LL-SDS-DELTASLEEPINDUCING-001 |
| **REVISION DATE** | 2026-10-22 |
| **VERSION** | 1.8 |
| **Prepared for** | Loti Labs |
| **Basis** | OSHA Hazard Communication Standard, 29 CFR 1910.1200, including Appendix D; OSHA HCS 2024 alignment (primarily GHS Revision 7). Jurisdiction: United States; Section 14 covers U.S.-origin shipments under 49 CFR, the IATA Dangerous Goods Regulations and the IMDG Code. |

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| **Revision history** | Revision 1.8 (2026-10-22): final line-by-line consistency review of all sections; Section 3 excipient statement completed and duplicate composition note removed; wording, spelling (U.S.), units and batch-method text standardized. Revision 1.7 (2026-10-18): checked against the batch Certificate(s) of Analysis listed below; batch-documentation statements (assay, counter-ion, water and solvent content) corrected to match what the batch COAs actually report; Section 1 other means of identification completed; Section 9 completed for all Appendix D properties (color, flammability limits, vapor density, evaporation rate, particle characteristics); Section 11 interactive-effects and data-basis statements added (Appendix D 11(e), 11(g)); Section 14 environmental-hazard, bulk-transport and special-precaution entries completed; Section 15 limited to U.S. federal and state requirements (non-U.S. inventory statements removed); Section 7 storage reference limited to the product label (the batch COAs do not state storage conditions). Revision 1.6 (2026-10-03): completed manual sheet-by-sheet identity, classification, label-element, toxicology, transport and regulatory review; removed pilot and template-residue language; reconciled Sections 2, 3, 9, 11, 14 and 15. |
| **Batch documentation reviewed** | Bioviridian COA (verification code COA6767), lot LL-DSP-726, dated 2026-07-27: identity by LC-MS (mass 848.8 Da); purity 99.71% (RP-HPLC, 214 nm); measured content 2.21 mg. This SDS is product-level; lot-specific identity, purity and content are governed by the batch Certificate of Analysis. |

Principal sources consulted

PubChem. Delta Sleep-Inducing Peptide, Compound Summary, CID 68816. National Center for Biotechnology Information. https://pubchem.ncbi.nlm.nih.gov/compound/68816. Accessed 2026-07-15.

OSHA. Hazard Communication Standard, 29 CFR 1910.1200, including Appendix D, Safety Data Sheets. https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1200. Accessed 2026-07-15.

OSHA. Hazard Communication Standard Final Rule (2024). https://www.osha.gov/hazcom/rulemaking. Accessed 2026-07-15.

United Nations. Globally Harmonized System of Classification and Labelling of Chemicals, Revision 7 (2017). https://unece.org/transport/dangerous-goods/ghs-rev7-2017. Accessed 2026-07-15.

NTP. Report on Carcinogens, Fifteenth Edition. https://ntp.niehs.nih.gov/whatwestudy/assessments/cancer/roc. Accessed 2026-07-15.

IARC. Agents Classified by the IARC Monographs. https://monographs.iarc.who.int/agents-classified-by-the-iarc/. Accessed 2026-07-15.

EPA. TSCA Chemical Substance Inventory, non-confidential portion (July 2026 release). https://www.epa.gov/tsca-inventory. Accessed 2026-10-18.

OEHHA. Proposition 65 List of chemicals known to the State of California to cause cancer or reproductive toxicity (list dated July 31, 2026). https://oehha.ca.gov/proposition-65/proposition-65-list. Accessed 2026-10-18.

Key abbreviations

ACGIH, American Conference of Governmental Industrial Hygienists · BCF, Bioconcentration factor · CAS, Chemical Abstracts Service · GHS, Globally Harmonized System · IATA, International Air Transport Association · IMDG, International Maritime Dangerous Goods · NIOSH, National Institute for Occupational Safety and Health · OEL, Occupational exposure limit · OSHA, Occupational Safety and Health Administration · PPE, Personal protective equipment · STOT, Specific target organ toxicity.

## 16. Other information · disclaimer

The information in this Safety Data Sheet reflects the sources and product records cited as of the revision date and is provided for occupational handling of the product described.

Because substance-specific toxicological, ecotoxicological, and physical-hazard data are limited, this document uses conservative handling guidance and clearly identifies data gaps. Loti Labs does not warrant that the information is exhaustive. Users are responsible for determining suitability for their operation, conducting task-specific risk assessment, maintaining appropriate controls, and complying with all applicable federal, state, and local requirements.

This product is intended solely for scientific research and development. It is not for human or veterinary use and is not intended for food, drug, cosmetic, household, agricultural, clinical, therapeutic, or diagnostic applications.

## Document review and approval

By signing below, the reviewer confirms that the supplied form, composition, hazard classification, transport classification and regulatory content of this safety data sheet have been reviewed and are approved for release.

| | |
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| **CHECKED BY** | Dr Afroza Begum |
| **CREDENTIALS** | PhD in Biosciences |
| **DATE** | 08/11/2026 |
| **SIGNATURE** | Afroza Begum |

Scope of review: Reviewed for content, classification, labelling and transport under 29 CFR 1910.1200 (Appendices A to D) and 49 CFR. Compound identity was checked against public references (PubChem, CAS) and the supplier’s product specification. Batch composition, purity and certificates of analysis were not verified as part of this review. Transport classification reviewed for consistency with 49 CFR; classification for shipment remains the shipper’s responsibility. Applies to version 1.8 dated 2026-10-22 only.

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