



Retatrutide — lyophilized powder for laboratory research use

Product	CAS number	Molecular formula	Molecular weight	Form	Use
Retatrutide	2381089-83-2	C221H342N46O68	4731.36 g/mol	Lyophilized powder	Research use only

This product is supplied for laboratory research use only. It is not a medicine, is not approved by the FDA or any comparable authority for human or veterinary use, and must not be administered to humans or animals. Retatrutide is a biologically active peptide whose toxicological profile has not been characterised; treat it as a research chemical of unknown hazard.

1. Identification

Product identifier	Retatrutide (lyophilized powder)
CAS number	2381089-83-2
Synonyms	LY3437943
Product forms	10 mg, 15 mg, 20 mg single-use research vials
Identified use	Laboratory research; in-vitro and analytical use
Uses advised against	Human use, veterinary use, food, cosmetic, or any therapeutic or diagnostic application
Supplier	RetaGrade
Address	525 Washington Blvd, Ste 300, Jersey City, NJ 07310, United States
Contact	orders@retagrade.com retagrade.com
Emergency contact	Immediate emergency: contact local emergency services or the official poison center serving your location. Product information: orders@retagrade.com

2. Hazard(s) identification

GHS classification

Not classified as a hazardous substance under OSHA HCS 29 CFR 1910.1200. This classification reflects the absence of data rather than the presence of evidence of safety: the substance has not been subjected to the studies that GHS classification requires.

Signal word	None assigned
Hazard pictograms	None assigned
Hazard statements	None assigned

Hazards not otherwise classified

- Biologically active peptide. Retatrutide is an investigational agonist at the GLP-1, GIP and glucagon receptors; incidental systemic exposure may produce pharmacological effects.
- Fine lyophilized powder. May form an airborne dust during handling, with a risk of inhalation and of mucous-membrane or eye irritation.
- No occupational exposure limit has been established for this substance by OSHA, ACGIH, or NIOSH.

3. Composition / information on ingredients

Component	CAS number	Concentration	Classification
Retatrutide	2381089-83-2	> 95% (by HPLC)	Not classified

Supplied as a single-component lyophilized powder. Lot-specific purity is stated on the certificate of analysis or test report published for that lot at retagrade.com/lookup. Molecular formula: C221H342N46O68. Average molecular weight: 4731.36 g/mol (4.731 kDa).

4. First-aid measures

Inhalation	Move the person to fresh air. If breathing is difficult, seek medical advice.
Skin contact	Wash with soap and water. Remove contaminated clothing. Seek medical advice if irritation persists.
Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Seek medical advice if irritation persists.
Ingestion	Do not induce vomiting. Rinse mouth. Seek immediate medical advice.

Most important symptoms and effects: not known. No human exposure data are available. Because the substance is pharmacologically active, inform the attending physician that exposure was to an investigational GLP-1 / GIP / glucagon receptor agonist. No specific antidote is known; treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media	Water spray, dry chemical, carbon dioxide, or alcohol-resistant foam.
Unsuitable media	No data available.
Specific hazards	Combustion may produce carbon oxides and nitrogen oxides.
Protection for firefighters	Self-contained breathing apparatus and full protective clothing.

6. Accidental release measures

- Personal precautions: avoid generating dust. Wear the protection described in section 8. Restrict access to the affected area.
- Environmental precautions: do not allow the material to enter drains or watercourses.
- Containment and cleaning: collect the powder without raising dust, using damp wiping or a HEPA-filtered vacuum. Place into a labelled, closed container for disposal under section 13.

7. Handling and storage

- Handle in a well-ventilated area, ideally within a fume hood or containment enclosure, using aseptic technique.
- Avoid formation and inhalation of dust. Avoid contact with skin, eyes, and clothing.
- Do not eat, drink, or smoke in the handling area. Wash hands thoroughly after handling.
- Store the unopened vial at -20 °C, desiccated and protected from light.
- After reconstitution, store refrigerated at 2-8 °C and use within the period stated in the product's reconstitution guidance. Avoid repeated freeze-thaw cycles.
- Keep out of reach of children and of anyone not trained in laboratory handling.

8. Exposure controls / personal protection

Occupational exposure limit	None established (OSHA, ACGIH, NIOSH).
Biological limit value	None established.
Engineering controls	Local exhaust ventilation or a containment enclosure where dust may be generated. Eyewash station and safety shower accessible.
Eye protection	Safety glasses with side shields, or goggles.
Skin protection	Nitrile gloves; laboratory coat.
Respiratory protection	Not normally required with adequate ventilation. Use a NIOSH-approved particulate respirator where dust cannot be controlled.

9. Physical and chemical properties

Property	Value	Property	Value
Appearance	White to off-white powder	Odour	No data available.
Physical state	Solid (lyophilized)	Odour threshold	No data available.
pH	No data available.	Melting point	No data available.
Boiling point	No data available.	Flash point	No data available.
Flammability	No data available.	Vapour pressure	No data available.
Relative density	No data available.	Partition coefficient	No data available.
Solubility (water)	Soluble	Auto-ignition temp.	No data available.
Decomposition temp.	No data available.	Viscosity	No data available.

10. Stability and reactivity

Reactivity	No dangerous reaction known under conditions of normal use.
Chemical stability	Stable as a lyophilized powder under the storage conditions in section 7.
Hazardous reactions	None known.
Conditions to avoid	Elevated temperature, moisture, repeated freeze-thaw cycles, prolonged exposure to light.
Incompatible materials	Strong oxidising agents.
Hazardous decomposition	Carbon oxides and nitrogen oxides.

11. Toxicological information

No toxicological data are available for this substance. The entries below record that absence; they are not statements that the substance is non-toxic.

Endpoint	Result
Acute toxicity (oral, dermal, inhalation)	No data available.
Skin corrosion / irritation	No data available.
Serious eye damage / irritation	No data available.
Respiratory or skin sensitisation	No data available.
Germ cell mutagenicity	No data available.
Carcinogenicity	Not listed by IARC, NTP, or OSHA.
Reproductive toxicity	No data available.
STOT (single and repeated exposure)	No data available.
Aspiration hazard	No data available.

Retatrutide is under clinical investigation as a triple agonist at the GLP-1, GIP and glucagon receptors. Findings reported in that clinical literature describe therapeutic administration under medical supervision and are not a substitute for occupational toxicology; they must not be read as an occupational safety assessment.

12. Ecological information

Aquatic toxicity	No data available.
Persistence and degradability	No data available.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	No data available.

In the absence of data, do not release the material into the environment. Do not empty into drains.

13. Disposal considerations

- Dispose of the substance, its solutions, and any contaminated packaging through a licensed chemical waste contractor, in accordance with federal, state, and local regulation.
- Do not dispose of via household waste or the sanitary sewer.
- Decontaminate vials and consumables before disposal in accordance with your institution's biosafety and chemical hygiene plan.

14. Transport information

UN number	Not assigned.
UN proper shipping name	Not applicable.
Transport hazard class	Not classified as dangerous goods (DOT, IATA, IMDG).
Packing group	Not applicable.
Environmental hazards	Not classified as a marine pollutant.
Special precautions	Ship refrigerated or on cold packs to preserve material integrity.

15. Regulatory information

- This substance is supplied for research use only and is not approved by the FDA for human or veterinary use.
- Not listed on the TSCA inventory; supplied under the research and development exemption at 40 CFR 720.36.
- Not a controlled substance under the US Controlled Substances Act.
- SARA 313, California Proposition 65: not listed.
- The purchaser is responsible for determining and complying with the regulations applicable to their own jurisdiction and intended use.

16. Other information

Document number	RG-SDS-RETA-001
Revision	1.0
Issue date	28 July 2026
Supersedes	None; this is the first issue.
Prepared by	RetaGrade

The information in this safety data sheet is provided in good faith and is based on the data available to RetaGrade at the date of issue. Several sections record that no data exist; those entries are statements of absence, not assurances of safety. This sheet does not constitute a guarantee of any property, and the user is responsible for determining that the material is suitable and safe for their intended use and for conducting their own risk assessment under their institution's chemical hygiene plan.