

Teriparatide Acetate SDS/MSDS (Safety Data Sheet)

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Product Name: Teriparatide Acetate

Catalog Number: P1033

CAS Number: 52232-67-4

IUPAC Name: (4S)-4-[[[(2S)-2-[[[(2S)-2-[[[(2S)-4-amino-2-[[[(2S)-2-[[[(2S)-2-[[[(2S)-6-amino-2-[[2-[[[(2S)-2-[[[(2S)-4-amino-2-[[[(2S)-2-[[[(2S)-2-[[[(2S)-2-[[[(2S)-5-amino-2-[[[(2S,3S)-2-[[[(2S)-2-[[[(2S)-2-[[[(2S)-2-[[[(2S)-2-amino-3-hydroxypropanoyl]amino]-3-methylbutanoyl]amino]-3-hydroxypropanoyl]amino]-4-carboxybutanoyl]amino]-3-methylpentanoyl]amino]-5-oxopentanoyl]amino]-4-methylpentanoyl]amino]-4-methylsulfanylbutanoyl]amino]-3-(1H-imidazol-4-yl)propanoyl]amino]-4-oxobutanoyl]amino]-4-methylpentanoyl]amino]acetyl]amino]hexanoyl]amino]-3-(1H-imidazol-4-yl)propanoyl]amino]-4-methylpentanoyl]amino]-4-oxobutanoyl]amino]-3-hydroxypropanoyl]amino]-4-methylsulfanylbutanoyl]amino]-5-[[[(2S)-1-[[[(2S)-1-[[[(2S)-1-[[[(2S)-1-[[[(2S)-1-[[[(2S)-1-[[[(2S)-6-amino-1-[[[(2S)-6-amino-1-[[[(2S)-1-[[[(2S)-5-amino-1-[[[(2S)-1-[[[(2S)-1-[[[(2S)-1-[[[(2S)-4-amino-1-[[[(1S)-1-carboxy-2-phenylethyl]amino]-1,4-dioxobutan-2-yl]amino]-3-(1H-imidazol-4-yl)-1-oxopropan-2-yl]amino]-3-methyl-1-oxobutan-2-yl]amino]-3-carboxy-1-oxopropan-2-yl]amino]-1,5-dioxopentan-2-yl]amino]-4-methyl-1-oxopentan-2-yl]amino]-1-oxohexan-2-yl]amino]-1-oxohexan-2-yl]amino]-5-carbamimidamido-1-oxopentan-2-yl]amino]-4-methyl-1-oxopentan-2-yl]amino]-3-(1H-indol-3-yl)-1-oxopropan-2-yl]amino]-4-carboxy-1-oxobutan-2-yl]amino]-3-methyl-1-oxobutan-2-yl]amino]-5-carbamimidamido-1-oxopentan-2-yl]amino]-5-oxopentanoic acid

1.2 Relevant identified uses and uses advised against

Identified uses: For research and development use only; laboratory chemicals; manufacture of substances.

Uses advised against: Not for pharmaceutical, household, or other unapproved uses.

1.3 Details of the supplier

Company: Selleck Chemicals

TollFree: +1 877 796-6397

Tel: +1 832 582-8158

Fax: +1 832 582-8590

1.4 Emergency telephone number

Emergency phone #: +1 832 582-8158

2. HAZARDS IDENTIFICATION

2.1 GHS classification in accordance with 29 CFR 1910 (OSHA HCS):

Acute toxicity (oral): Category 4. H302

Acute toxicity (inhalation): Category 4. H332

Specific target organ toxicity (single exposure): Category 3. H336

Carcinogenicity: Category 1. H350

Carcinogenicity: Category 2. H351

Reproductive toxicity: Category 1. H360

Reproductive toxicity: Category 2. H361

Specific target organ toxicity (single exposure): Category 1. H370
 Specific target organ toxicity (repeated exposure): Category 1. H372
 Specific target organ toxicity (repeated exposure): Category 2. H373

2.2 GHS Label elements, including precautionary statements

Hazard Pictogram(s)



Signal Word

Danger

Hazard statement(s)

H302: Harmful if swallowed
 H332: Harmful if inhaled
 H336: May cause drowsiness or dizziness
 H350: May cause cancer
 H351: Suspected of causing cancer
 H360: May damage fertility or the unborn child
 H361: Suspected of damaging fertility or the unborn child
 H370: Causes damage to organs
 H372: Causes damage to organs through prolonged or repeated exposure
 H373: May causes damage to organs through prolonged or repeated exposure

Precautionary statement(s)

None.

Prevention

P203: Obtain, read and follow all safety instructions before use.
 P260: Do not breathe dust/fume/gas/mist/vapors/spray.
 P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
 P264: Wash hands thoroughly after handling.
 P270: Do not eat, drink or smoke when using this product.
 P271: Use only outdoors or in a well-ventilated area.
 P280: Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

Response

P301+P317: IF SWALLOWED: Get medical help.
 P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P308+P316: IF exposed or concerned: Get emergency medical help immediately.
 P317: Get emergency medical help.
 P318: if exposed or concerned, get medical advice.
 P319: Get medical help if you feel unwell.
 P321: Specific treatment (see information on this label and safety datasheet)).
 P330: Rinse mouth.

Storage

P403+P233: Store in a well-ventilated place. Keep container tightly closed.
 P405: Store locked up.

Disposal

P501: P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards

None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Product name: Teriparatide Acetate

CAS Number: 52232-67-4

PubChem CID: 16133850

Molecular formula: C₁₈₁H₂₉₁N₅₅O₅₁S₂

Molecular weight: 4118 g/mol

IUPAC name: (4S)-4-[[[(2S)-2-[[[(2S)-2-[[[(2S)-4-amino-2-[[[(2S)-2-[[[(2S)-2-[[[(2S)-6-amino-2-[[2-[[[(2S)-2-[[[(2S)-4-amino-2-[[[(2S)-2-[[[(2S)-2-[[[(2S)-2-[[[(2S)-5-amino-2-[[[(2S,3S)-2-[[[(2S)-2-[[[(2S)-2-[[[(2S)-2-[[[(2S)-2-amino-3-hydroxypropanoyl]amino]-3-methylbutanoyl]amino]-3-hydroxypropanoyl]amino]-4-carboxybutanoyl]amino]-3-methylpentanoyl]amino]-5-oxopentanoyl]amino]-4-methylpentanoyl]amino]-4-methylsulfanylbutanoyl]amino]-3-(1H-imidazol-4-yl)propanoyl]amino]-4-oxobutanoyl]amino]-4-methylpentanoyl]amino]acetyl]amino]hexanoyl]amino]-3-(1H-imidazol-4-yl)propanoyl]amino]-4-methylpentanoyl]amino]-4-oxobutanoyl]amino]-3-hydroxypropanoyl]amino]-4-methylsulfanylbutanoyl]amino]-5-[[[(2S)-1-[[[(2S)-1-[[[(2S)-1-[[[(2S)-1-[[[(2S)-1-[[[(2S)-1-[[[(2S)-6-amino-1-[[[(2S)-6-amino-1-[[[(2S)-1-[[[(2S)-5-amino-1-[[[(2S)-1-[[[(2S)-1-[[[(2S)-1-[[[(2S)-4-amino-1-[[[(1S)-1-carboxy-2-phenylethyl]amino]-1,4-dioxobutan-2-yl]amino]-3-(1H-imidazol-4-yl)-1-oxopropan-2-yl]amino]-3-methyl-1-oxobutan-2-yl]amino]-3-carboxy-1-oxopropan-2-yl]amino]-1,5-dioxopentan-2-yl]amino]-4-methyl-1-oxopentan-2-yl]amino]-1-oxohexan-2-yl]amino]-1-oxohexan-2-yl]amino]-5-carbamimidamido-1-oxopentan-2-yl]amino]-4-methyl-1-oxopentan-2-yl]amino]-3-(1H-indol-3-yl)-1-oxopropan-2-yl]amino]-4-carboxy-1-oxobutan-2-yl]amino]-3-methyl-1-oxobutan-2-yl]amino]-5-carbamimidamido-1-oxopentan-2-yl]amino]-5-oxopentanoic acid

3.2 Mixtures

Not applicable (pure substance).

4. FIRST-AID MEASURES

4.1 Description of first aid measures

Inhalation: Move to fresh air. Keep at rest in a position comfortable for breathing. Seek medical attention if symptoms persist.

Skin contact: Wash with plenty of soap and water. Remove contaminated clothing. Seek medical attention if irritation develops.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention.

Ingestion: Rinse mouth. Do NOT induce vomiting unless directed by medical personnel. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 (Toxicological Information).

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Contact a poison control center or physician for severe exposure.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable: Water spray, dry chemical, carbon dioxide (CO₂), alcohol-resistant foam.

Unsuitable: None known.

5.2 Specific hazards arising from the substance or mixture

Combustible. Heating may produce toxic fumes.

5.3 Advice for firefighters

Wear self-contained breathing apparatus (SCBA) and full protective clothing.

Fight fire from upwind. Cool containers with water spray until fire is extinguished.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear appropriate personal protective equipment (see Section 8).

Avoid breathing dust/vapor. Ensure adequate ventilation.

Evacuate personnel to safe areas. Keep people away from and upwind of spill.

6.2 Environmental precautions

Prevent product from entering drains, waterways, or soil.

Contain spill with inert absorbent material.

6.3 Methods and materials for containment and cleaning up

SRP: The most favorable course of action is to use an alternative chemical product with less inherent propensity for occupational exposure or environmental contamination. Recycle any unused portion of the material for its approved use or return it to the manufacturer or supplier. Ultimate disposal of the chemical must consider: the material's impact on air quality; potential migration in soil or water; effects on animal, aquatic, and plant life; and conformance with environmental and public health regulations.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

The Forteo pen should be stored under refrigeration at 2 to 8 °C (36 to 46 °F) at all times.

7.2 Conditions for safe storage, including any incompatibilities

The Forteo pen should be stored under refrigeration at 2 to 8 °C (36 to 46 °F) at all times.

Store away from incompatible materials (see Section 10).

[Note: Specific storage temperature not available in public databases. Refer to supplier Certificate of Analysis (COA) for exact storage conditions.]

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Exposure controls

8.1.1 Occupational exposure limits (OEL)

OSHA PEL: Not established.

ACGIH TLV: Not established.

NIOSH REL: Not established.

No occupational exposure limit values are established for this substance.

Use the lowest feasible exposure level (ALARA principle).

8.1.2 Appropriate engineering controls

Use only in a chemical fume hood or with local exhaust ventilation.

Ensure adequate ventilation to keep airborne concentrations below exposure limits.

8.2 Individual protection measures

8.2.1 Eye/face protection

Wear safety glasses with side shields.

8.2.2 Skin protection

Wear protective gloves. Recommended material: Nitrile rubber.

Wear suitable protective clothing (lab coat).

8.2.3 Respiratory protection

Use NIOSH-approved dust/mist respirator (N95 or higher) if ventilation is inadequate.

8.2.4 Thermal hazards

Not applicable.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- a) Appearance: Solid powder (typical for research compounds)
- b) Odor: No data available
- c) Odor threshold: No data available
- d) pH: No data available
- e) Melting point/freezing point: No data available
- f) Initial boiling point and boiling range: No data available
- g) Flash point: No data available
- h) Evaporation rate: No data available
- i) Flammability (solid, gas): No data available
- j) Upper/lower flammability or explosive limits: No data available
- k) Vapor pressure: No data available
- l) Vapor density: No data available
- m) Relative density: No data available
- n) Water solubility: Soluble in DMSO; slightly soluble in water
- o) Partition coefficient: n-octanol/water: Log P (n-octanol/water): -18.7
- p) Auto-ignition temperature: No data available
- q) Decomposition temperature: No data available
- r) Viscosity: No data available
- s) Explosive properties: No data available
- t) Oxidizing properties: No data available

9.2 Other information

Topological Polar Surface Area (TPSA): 1800 Å²

Complexity: 9740

10. STABILITY AND REACTIVITY

10.1 Reactivity

No specific reactivity hazards identified under normal handling conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions under normal conditions.

10.4 Conditions to avoid

Avoid heat, sparks, open flames, direct sunlight, and moisture.

Avoid strong oxidizing agents, strong acids, and strong bases.

10.5 Incompatible materials

Strong oxidizing agents, strong acids, strong bases.

10.6 Hazardous decomposition products

Thermal decomposition may produce: Carbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen oxides (NO_x), Sulfur oxides (SO_x).

See also Section 5 (Fire-fighting measures) for combustion products.

11. TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects****Acute toxicity:**

No acute toxicity data available.

Skin corrosion/irritation:

No data available.

Serious eye damage/eye irritation:

No data available.

Respiratory or skin sensitization:

No data available.

Germ cell mutagenicity:

No data available.

Carcinogenicity:

May cause cancer (H350).

Reproductive toxicity:

May damage fertility or the unborn child (H360).

Specific target organ toxicity (single exposure):

H370, H372, H373

Specific target organ toxicity (repeated exposure):

No data available.

Aspiration hazard:

No data available.

11.2 Additional information

No additional toxicological information available.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

While data specific to teriparatide were not located(SRC, 2006), the literature suggests that some pharmaceutically active compounds originating from human and veterinary therapy are not eliminated completely in municipal sewage treatment plants and are therefore discharged into receiving waters(1). Wastewater treatment processes often were not designed to remove them from the effluent(2). Selected organic waste compounds may be degrading to new and more persistent compounds that may be released instead of or in addition to the parent compound(2).

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

Log P (n-octanol/water): -18.7

Low potential for bioaccumulation (Log P < 3).

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available.

12.6 Other adverse effects

No other adverse ecological effects identified.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste Treatment Methods: Waste material must be disposed of in accordance with national and local regulations. Leave chemicals in original containers and do not mix with other waste. Handle uncleaned containers in the same manner as the product itself.

14. TRANSPORT INFORMATION

14.1 UN number

Not regulated as dangerous goods (research quantities typically exempt).

14.2 UN proper shipping name

Not subject to transport regulations (small quantities for research use).

14.3 Transport hazard class(es)

Not classified as dangerous goods for transport (research quantities).

14.4 Packing group

Not applicable (not regulated as dangerous goods in typical research quantities).

14.5 Environmental hazards

Marine pollutant: No (not classified as environmentally hazardous per GHS).

14.6 Special precautions for user

Transport in original packaging. Ensure containers are tightly sealed.

For bulk or commercial quantities, consult applicable transport regulations (DOT, IATA, IMDG).

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

US EPA / TSCA: Not available in public databases.

EU ECHA / REACH: Not available in public databases.

SARA 302 Components:

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components:

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards:

Acute (short-term) health hazard

Chronic (long-term) health hazard

Massachusetts Right To Know Components:

This material contains components subject to the Massachusetts Right to Know Act. See Section 2 for hazard classification.

Pennsylvania Right To Know Components:

This material contains components subject to the Pennsylvania Right to Know Act. See Section 2 for hazard classification.

New Jersey Right To Know Components:

This material contains components subject to the New Jersey Right to Know Act. See Section 2 for hazard classification.

California Prop. 65 Components:

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Other regulatory listings:

- California Safe Cosmetics Program (CSCP) Reportable Ingredient: Hazard Traits - Carcinogenicity Authoritative List - Prop 65 Report - regardless of intended function of ingredient in the product
- FDA Requirements: The Approved Drug Products with Therapeutic Equivalence Evaluations List identifies currently marketed prescription drug products, incl teriparatide recombinant human, approved on the basis of safety and effectiveness by FDA under sections 505 of the Federal Food, Drug, and Cosmetic Act. /Teripara

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this substance.

For research-use-only compounds, no CSA is required under REACH Annex I.

16. OTHER INFORMATION

Revision Date: 2026/09/15

Further Information: The information provided is believed to be correct but is not exhaustive and should be used only as a guideline based on current knowledge. It does not represent a guarantee of the properties of the product.

Selleck Chemicals Corporation and its Affiliates shall not be held liable for any damage resulting from handling or contact with the product.