

**MATERIAL SAFETY DATA SHEET**

In compliance to European parliament and Committee (EC) no. 1907/2006 (REACH)
and the Committee directive (EU) no. 453/2010

Thymosine beta-4 (TB500)

Publication date: 14. 7. 2015

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**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/
UNDERTAKING****1.1. Product identifiers**

Product name:	Thymosine beta-4 (TB500)
CAS Number	77591-33-4
Other names	Ac-Ser-Asp-Lys-Pro-Asp-Met-Ala-Glu-Ile-Glu-Lys-Phe-Asp-Lys-Ser-Lys-Leu-Lys-Lys-Thr-Glu-Thr-Gln-Glu-Lys-Asn-Pro-Leu-Pro-Ser-Lys-Glu-Thr-Ile-Glu-Gln-Glu-Lys-Gln-Ala-Gly-Glu-Ser-OH

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Substance for the research uses only.

1.3. Details of the supplier of the safety data sheet

Distributor:	PARTICLE, s.r.o.
Address:	Ulica mieru 2531/4 984 01 Lučenec, SLOVAKIA
ID:	IČO 47858541
Telephone:	+421 917 976 258
E-mail:	info@particlepeptides.com

1.4. Emergency Telephone number

NATIONAL TOXICOLOGICAL INFORMATION CENTRE
University hospital Bratislava
Department of Occupational Medicine and Toxicology
Limbová 5, 833 05 Bratislava, SLOVAKIA
Telephone: +421 2 5465 2307
Cellphone: +421 911 166 066
Fax: +421 2 5477 4605
E-mail: ntic@ntic.sk

SECTION 2: HAZARDS IDENTIFICATION**2.1. Classification of the substance or mixture**

Classification of the mixture according to directive (EC) No 1272/2008: mixture is not considered as hazardous

2.2. Label elements

There is no need to label the product in compliance with the directives of European Committee of national regulation/legislation.

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2.3. Other hazards

None.

SECTION 3: COMPOSITION/INFORMATION OF INGREDIENTS**3.1. Substances**

Molecular formula:	C ₂₁₂ H ₃₅₀ N ₅₆ O ₇₈ S
Molar weight:	4963.44 g/mol
CAS number:	77591-33-4

SECTION 4: FIRST AID MEASURES**4.1. Description of the first aid measures**

In case of an accident of the health issue get immediate medical advice/attention.

If inhaled

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get immediate medical advice/attention.

If on skin

Rinse cautiously with water for several minute. Get medical advice/attention.

If swallowed

DO NOT INDUCE VOMITING – NOT TO INCREASE THE DANGER OF ADDITIONAL DAMAGE OF DIGESTIVE TRACT!! GET IMMEDIATE MEDICAL ADVICE/ATTENTION!

If in eyes

Rinse cautiously with water for several minutes. Remove contact lens. Continue rinsing. Get immediate medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed**If on skin**

May cause skin irritation and/or dermatitis.

MAY CAUSE AN ALLERGIC REACTION.

If swallowed

MAY CAUSE RESPIRATORY IRRITATION.

4.3. Identification of immediate medical attention and special treatment needed

No data available.

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SECTION 5: FIRE-FIGHTING MEASURES**5.1. Extinguishing media**

Use dry chemical, CO₂, water spray or "alcohol" foam.

5.2. Special hazards arising from the substance or mixture

In case of fire flaring can cause the irritation vapour arises.

5.3. Precautions for fire-fighters

In case of fire wear self-respiratory protection MSHA/NIOSH (proved or equivalent) and complete protection dress.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment as required.

6.2. Environmental precautions

Avoid soil contamination and outflow to surface or ground water.

6.3. Methods and materials for containments and cleaning up

Cover the spill of the mixture with non-flammable absorbent. Store the absorbent in closed containers and handle the waste according the information in paragraph 13.

6.4. Reference to other sections

Section 7, 8 a 13

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SECTION 7: HANDLING AND STORAGE**7.1. Precautions for safe handling**

Use personal protective equipment as required. Store in a well-ventilated place with exhaust plant.

7.2. Conditions for safe storage, including any incompatibilities

Store in a closed container at temperature: -18°C for 3 years
0 – 7°C for 1 year
7 – 30°C for 6 months.

7.3. Specific end uses

The spontaneous products of flaming occur of in fire.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters**

Does not content substances with threshold exposure limits for working places.

8.2. Exposure controls

Care of the health protection at the working places especially of the good air conditions of the working places. For the good air conditions use local or areal exhausting system.

Respiratory protection

Use the mask with the filter protecting against aerosols or ashes.

Skin protection

Hand protection: Gloves resistant to the product. Follow the recommendation of the gloves producers for the thickness, material and permeability. For the long term contact with the mixture use proper skin cream.

Eye/face protection

Use goggles and face shield (depended on the work you make).

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties**

Appearance	
Conditions	Powder
Colour	White or coloured
Odour	N/A
pH	N/A
Melting/setting temperature	N/A
Boiling temperature	N/A
Flash temperature	N/A
Surface tension	N/A
Vapour pressure	N/A
Viscosity	N/A
KOW: n-octanol/water	N/A
Decomposition temperature	230°C
Flammability	N/A
Solubility	Soluble in water

9.2. Other safety information

Data not available

SECTION 10: STABILITY AND REACTIVITY**10.1. Chemical stability**

The mixture is stable under normal conditions.

10.2. Polymerization

None under normal processing.

10.3. Possibility of hazardous reactions

Mixture is stable on the normal conditions.

10.4. Conditions to avoid

Mixture is stable on normal conditions, no decomposition. Protect against air or humidity for a longer time.

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10.5. Incompatible materials

Protect against strong oxidants.

10.6. Hazardous decomposition products

Nitrous oxide (NO_x), Ammonia, Cyanides oxides, Sulphured oxides

SECTION 11: TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects**

Concentrations LD₅₀ a LC₅₀ were not set.

Chronic toxicity

Chronic exposure may cause retch or vomiting. Higher exposure causes trace.

Local effects

Symptoms heavier exposure may be headache, dizziness, lassitude, retch and vomiting.

Specific effects

Can content mean or heavy erythema and middle oedema, retch, vomiting, headache.

Irritation

No data available.

Carcinogenic effects

No data available.

Mutagenic effects

No data available.

Reproduction toxicity

No data available.

Potential health effects

If inhaled	Harmful if inhale. May cause respiratory irritation.
If swallowed	Harmful if swallowed.
Skin	May cause an allergic skin reaction. Causes skin irritation.
Eye	Causes serious eye irritation

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SECTION 12: ECOLOGICAL INFORMATION**12.1. Mobility**

Data not available.

12.2. Bioaccumulative potential

Data not available.

12.3. Ecotoxicological effects

Data not available.

12.4. Toxicity for water organisms

May cause long lasting harmful effects to aquatic life.

12.5. Other adverse effects

Not present

SECTION 13: DISPOSAL CONSIDERATION

Danger of contamination of the environment, follow your country legislation/regulation.

13.1. Waste treatment methods

Follow valid waste treatment legislation. Non used product and used packaging store into the marked containers and forward to authorised waste company which is authorised to the operation with the specific waste category. It is not allowed to re-use once used packaging again.

13.2. Legislation for the waste treatment

Follow your country legislation/regulation.

SECTION 14: TRANSPORT INFORMATION**14.1. UN-number**

ADR/RID: -

IMDG: -

IATA: -

14.2. UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

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14.3. Packaging group

ADR/RID: -

IMDG: -

IATA: -

14.4. Environmental hazards

ADR/RID: No

IMDG Marine pollutant: No

IATA: no

SECTION 15: REGULATORY INFORMATION

Safety data sheet complies with the Directive (EC) No 1907/2006.

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

Data not available.

15.2. Chemical safety assessment

Data not available.

SECTION 16: OTHER INFORMATION

For the research and development purpose only. It is strict prohibited to use the substance for drugs, home use or other use.

Statement

Safety data sheet contents data for the health and safety protection for the workers and environment. Data are in compliance up to date knowledge and experience and do comply with valid regulations and legislation. There cannot guaranty overall for the proper use or usage for the concrete application.