

CHAITANYA CHS, 2nd FLOOR, OFFICE # 206, SIDDHARTH NAGAR, S.V.ROAD, GOREGAON (W), MUMBAI 400062, MH, INDIA.
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MATERIAL SAFETY DATA SHEET (MSDS)

HBTU (FOR PEPTIDE SYNTHESIS)

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : HBTU (FOR PEPTIDE SYNTHESIS)

Product code : H0105900005
 CAS No: 94790-37-1

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

Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet

Company identification : SUVCHEM
 Chaitanya Tower, 2nd Floor, Office # 206,
 Siddharth Nagar, S.V. Road,
 Goregaon (West), Mumbai - 400062,
 Maharashtra, India.
 Contact: +91 22 28725393 / 94 / 95
 Email ID: info@suvchem.com/care@suvchem.com

1.4. Emergency telephone number

Phone no. : + 91 22 28725393 / 94 / 95 (9:00am - 6:00 pm) [Office hours]

2. Hazards identification -DSD

2.1. Classification of the substance or mixture

Classification EC 67/548 or EC 1999/45

Classification : Xi; R36/37/38

Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Health hazards : Specific Target Organ Toxicity - Single exposure - Respiratory tract irritation -
 Category 3 - Warning (CLP : STOT SE 3) H335
 Eye irritation - Category 2A - Warning (CLP : Eye Irrit. 2) H319
 Skin irritation - Category 2 - Warning (CLP : Skin Corr. 2) H315

2.2. Label elements

Labelling EC 67/548 or EC 1999/45

Symbol(s)



MATERIAL SAFETY DATA SHEET (MSDS)
HBTU (FOR PEPTIDE SYNTHESIS)
2. Hazards identification -DSD (continued)

Symbol(s)	: Xn : Harmful
R Phrase(s)	: R36/37/38 : Irritating to eyes, respiratory system and skin.
S Phrase(s)	: S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36 : Wear suitable protective clothing.
Contains	: Pentasodium (carboxylatomethyl)iminobis(ethylenenitrilo)tetraacetate

Labelling Regulation EC 1272/2008 (CLP)
Hazard pictograms


Signal words	: Warning
Hazard statements	: H319 : Causes serious eye irritation. H315 : Causes skin irritation. H335 : May cause respiratory irritation.
Precautionary statements	
• Prevention	: P280: Wear protective gloves, protective clothing, eye protection, face protection. P271: Use only outdoors or in a well-ventilated area. P261: Avoid breathing dust, fume, gas, mist, vapours, spray. P264: Wash thoroughly after handling.
• Response	: P302+P352: IF ON SKIN : Wash with plenty of soap and water. P332+P313: If skin irritation occurs : Get medical advice. P305+P351+P338: IF IN EYES : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P304+P340: IF INHALED : Remove to fresh air and keep at rest in a position comfortable for breathing. P363: Wash contaminated clothing before reuse.
• Storage	: P403+P233: Store in well-ventilated place. Keep container tightly closed. P405: Store locked up.
• Disposal considerations	: P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
Contains	: Pentasodium (carboxylatomethyl)iminobis(ethylenenitrilo)tetraacetate

2.3. Other hazards

Other hazards	: The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.
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3. Composition/information on ingredients

Substance / Preparation	: Preparation.
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MATERIAL SAFETY DATA SHEET (MSDS)

HBTU (FOR PEPTIDE SYNTHESIS)

3. Composition/information on ingredients (continued)

Substance name	Contents	CAS No	EC No	Annex No	REACH Ref.	Classification
Pentasodium (carboxylatomethyl) : iminobis(ethylenenitrilo) tetraacetate		583-61-9	209-514-1	----	----	R10 Xn; R22 Xi; R37/38-41 ----- Eye Dam 1 _ H318 Flam. Sol. 2 _ H228 Acute Tox. 4 (oral) _ H302 Skin Irrit. 2 _ H315 STOT SE 3 _ H335

4. First aid measures

4.1. Description of first aid measures

Inhalation	: Call a POISON CENTER or doctor if you feel unwell. Remove to fresh air and keep at rest in a position comfortable for breathing.
Skin contact	: If skin irritation occurs : Get medical advice. Specific treatment (see on this label). Wash contaminated clothing before reuse. Wash with plenty of soap and water.
Eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists : Get medical advice.
Ingestion	: Obtain emergency medical attention. Do NOT induce vomiting. Rinse mouth.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms relating to use	: Causes serious eye irritation. Causes skin irritation. May cause respiratory irritation.
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4.3. Indication of any immediate medical attention and special treatment needed

General information	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
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5. Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.
Surrounding fires	: Use water spray or fog for cooling exposed containers.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products	: Under fire conditions, hazardous fumes will be present.
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5.3. Advice for fire-fighters

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HBTU (FOR PEPTIDE SYNTHESIS)
5. Fire-fighting measures (continued)

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| Protection against fire | : Do not enter fire area without proper protective equipment, including respiratory protection. |
| Special procedures | : Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment. |

6. Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures

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| For emergency responders | : Equip cleanup crew with proper protection. Ventilate area. |
| For non-emergency personnel | : Evacuate unnecessary personnel. |

6.2. Environmental precautions

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| Environmental precautions | : Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters. |
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6.3. Methods and material for containment and cleaning up

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| Clean up methods | : On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials. |
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6.4. Reference to other sections

See section 8. Exposure controls/personal protection

7. Handling and storage
7.1. Precautions for safe handling

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|--------------------------------------|---|
| Handling | : Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Wash thoroughly after handling. |
| Technical protective measures | : Provide good ventilation in process area to prevent formation of vapour. |
| Special precautions | : Avoid breathing dust, fume, gas, mist, vapours, spray. |

7.2. Conditions for safe storage, including any incompatibilities

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| Storage | : Keep only in the original container in a cool, well ventilated place. Keep container tightly closed. |
| Storage - away from | : Strong bases. Strong acids. Sources of ignition. Direct sunlight. |

7.3. Specific end use(s)

MATERIAL SAFETY DATA SHEET (MSDS)
HBTU (FOR PEPTIDE SYNTHESIS)
7. Handling and storage (continued)

Specific end use(s) : None.

8. Exposure controls/personal protection
8.1. Exposure controls

Personal protection	: Avoid all unnecessary exposure.
• Respiratory protection	: Wear approved mask.
• Hand protection	: Wear protective gloves.
• Skin protection	: Wear suitable protective clothing.
• Eye protection	: Chemical goggles or safety glasses.
• Others	: When using, do not eat, drink or smoke.

8.2. Control parameters

Occupational Exposure Limits : No data available.

9. Physical and chemical properties
9.1. Information on basic physical and chemical properties

Physical state at 20 °C	: Solid.
Colour	: White crystalline
Odour	: Odorless
Odour threshold	: No data available.
pH value	: Not applicable.
Melting point [°C]	: 200 °C
Decomposition point [°C]	: N/A
Critical temperature [°C]	: N/A
Auto-ignition temperature [°C]	: N/A
Flammability (solid, gas)	: N/A
Flash point [°C]	: N/A
Boiling point [°C]	: N/A
Initial boiling point [°C]	: N/A
Final boiling point [°C]	: N/A
Evaporation rate	: N/A
Vapour pressure [20°C]	: N/A
Vapour pressure mm/Hg	: N/A
Vapour density	: N/A

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HBTU (FOR PEPTIDE SYNTHESIS)
9. Physical and chemical properties (continued)

Density [g/cm ³]	: N/A
Relative density, gas (air=1)	: N/A
Relative density, liquid (water=1)	: N/A
Solubility in water [% weight]	: N/A
Solubility in water	: N/A
Log Pow octanol / water at 20°C	: No data available.
Solubility	: N/A
Viscosity at 40°C [mm ² /s]	: N/A

9.2. Other information

Explosive properties	: N/A
Explosion limits - upper [%]	: N/A
Explosion limits - lower [%]	: N/A
Oxidising properties	: No data available.

10. Stability and reactivity
10.1. Reactivity

Reactivity	: Not established.
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10.2. Chemical stability

Chemical stability	: Stable under recommended storage conditions.
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10.3. Possibility of hazardous reactions

Hazardous reactions	: Not established.
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10.4. Conditions to avoid

Conditions to avoid	: Direct sunlight. Extremely high or low temperatures.
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10.5. Incompatible materials

Materials to avoid	: Strong acids. Strong bases.
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10.6. Hazardous decomposition products

Hazardous decomposition products	: Fumes. Carbon monoxide. Carbon dioxide.
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MATERIAL SAFETY DATA SHEET (MSDS)
HBTU (FOR PEPTIDE SYNTHESIS)
11. Toxicological information
11.1. Information on toxicological effects

Toxicity information	: The product has been not fully tested. The calculated risk has been done under the requirements of the EU regulations.
Acute toxicity	
• Inhalation	: Based on available data, the classification criteria are not met.
• Dermal	: Based on available data, the classification criteria are not met.
• Ingestion	: Based on available data, the classification criteria are not met.
Corrosion	: Based on available data, the classification criteria are not met.
Irritation	: Causes serious eye irritation. Causes skin irritation. May cause respiratory irritation.
Sensitization	: Based on available data, the classification criteria are not met.
Mutagenicity	: Based on available data, the classification criteria are not met.
Carcinogenicity	: Based on available data, the classification criteria are not met.
Toxic for reproduction	: Based on available data, the classification criteria are not met.
STOT-single exposure	: Based on available data, the classification criteria are not met.
STOT-repeated exposure	: Based on available data, the classification criteria are not met.
Aspiration hazard	: Based on available data, the classification criteria are not met.

12. Ecological information
12.1. Toxicity

Toxicity information	: The product has been not fully tested. The calculated risk has been done under the requirements of the EU regulations.
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12.2. Persistence - degradability

Persistence - degradability	: Biodegradable.
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12.3. Bioaccumulative potential

Bioaccumulative potential	: Not established.
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12.4. Mobility in soil

Mobility in soil	: Not established.
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12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	: The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.
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MATERIAL SAFETY DATA SHEET (MSDS)
HBTU (FOR PEPTIDE SYNTHESIS)
12. Ecological information (continued)
12.6. Other adverse effects

Environmental precautions : Avoid release to the environment.

13. Disposal considerations
13.1. Waste treatment methods

General : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.

14. Transport information
14.1. Land transport (ADR-RID)

General information : Not regulated.

14.2. Sea transport (IMDG) [English only]

General information : Not regulated.

14.3. Air transport (ICAO-IATA) [English only]

General information : Not regulated.

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

Safety, health and environmental regulations/legislation specific for the substance or mixture : Ensure all national/local regulations are observed.

REACH Restrictions - Annex XVII : The components of this product are not subject to restrictions.

REACH Authorisation - Annex XIV : The components of this product are not subject to authorization.

15.2. Chemical Safety Assessment

Chemical Safety Assessment : It has not been carried out.

MATERIAL SAFETY DATA SHEET (MSDS)

HBTU (FOR PEPTIDE SYNTHESIS)

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

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