SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

- Trade name: HBTU, N,N,N',N'-Tetramethyl-O-(1H-benzotriazol-1-yl)uronium hexafluorophosphate
- Article number: 0801
- CAS Number: 94790-37-1
- ELINCS Number: 423-020-5
- Registration number

A registration number is not available for this substance as the substance or its uses are exempted from registration or the annual tonnage does not require a registration.

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

No further relevant information available.

Application of the substance / the mixture

Chemical for research, development, manufacturing, laboratory chemical for analysis.

1.3 Details of the supplier of the safety data sheet

- Manufacturer/Supplier:
  - Biosolve Chimie
  - 20 Rue Roger Husson, 57260 Dieuze, France
  - Tel: +33 3 878 675 80/81/82/83/84/85
  - Email: info@biosolvechimie.com

- Biosolve B.V.
  - Leenderweg 78, 5555 CE Valkenswaard, the Netherlands.
  - Tel: +31-(0)40-2071300
  - Fax:+31-(0)40-2048537
  - Email: info@biosolve-chemicals.com

Further information obtainable from: Product safety department.

1.4 Emergency telephone number:

For emergency telephone numbers of the poisons centers in Europe please use this link: http://www.eapcct.org/

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

- GHS02 flame
  - Flam. Sol. 1 H228 Flammable solid.

- GHS07
  - Skin Irrit. 2 H315 Causes skin irritation.
  - Eye Irrit. 2 H319 Causes serious eye irritation.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.
**Hazard pictograms**

GHS02  GHS07

**Signal word** Danger

**Hazard statements**
- H228 Flammable solid.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.

**Precautionary statements**
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P240 Ground and bond container and receiving equipment.
- P241 Use explosion-proof [electrical/ventilating/lighting] equipment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P332+P313 If skin irritation occurs: Get medical advice/attention.

**2.3 Other hazards**
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

**SECTION 3: Composition/information on ingredients**

**3.1 Chemical characterisation: Substances**
- CAS No.
- Description
- 94790-37-1 HBTU, N,N,N′,N′-Tetramethyl-O-(1H-benzotriazol-1-yl)uronium hexafluorophosphate
- Identification number(s)
  - ELINCS Number: 423-020-5
  - *
**SECTION 5: Firefighting measures**

- **5.1 Extinguishing media**
  - Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
  - Protective equipment: No special measures required.

**SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures**
  - Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:** No special measures required.
- **6.3 Methods and material for containment and cleaning up:** Ensure adequate ventilation.
- **6.4 Reference to other sections**
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

**SECTION 7: Handling and storage**

- **7.1 Precautions for safe handling**
  - Keep away from open flames, hot surface and source of ignition. Take precautionary measures against static discharge.
  - Information about fire - and explosion protection:
    - Keep ignition sources away - Do not smoke.
    - Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
  - Storage:
    - Requirements to be met by storerooms and receptacles:
      - Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
      - Recommended storage temperature: 2 - 8 °C
    - Information about storage in one common storage facility: Not required.
    - Further information about storage conditions: Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

**SECTION 8: Exposure controls/personal protection**

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**
  - Ingredients with limit values that require monitoring at the workplace: Not required.
  - Additional information: The lists valid during the making were used as basis.
- **8.2 Exposure controls**
  - Personal protective equipment:
    - General protective and hygienic measures:
      - Keep away from foodstuffs, beverages and feed.
      - Immediately remove all soiled and contaminated clothing
      - Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

- Respiratory protection: Not required.
- Protection of hands:

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- Material of gloves
  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- Penetration time of glove material
  The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection:
  Tightly sealed goggles

---

**SECTION 9: Physical and chemical properties**

- 9.1 Information on basic physical and chemical properties
  - General Information
  
  - Appearance:
    
    - Form: Solid
    - Colour: White to off-white solid.
    - Odour: Odourless
    - Odour threshold: Not determined.
  
  - pH-value: 4.1

  - Change in condition
    
    - Melting point/freezing point: Undetermined.
    - Initial boiling point and boiling range: Undetermined.

  - Flash point: Not applicable.

  - Flammability (solid, gas): Product is not flammable.

  - Decomposition temperature: Not determined.

  - Auto-ignition temperature: Not determined.

  - Explosive properties: Not determined.

  - Explosion limits:
    
    - Lower: Not determined.
    - Upper: Not determined.
Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 20.04.2018 Revision: 29.01.2018

Trade name: HBTU, N,N,N',N'-Tetramethyl-O-(1H-benzotriazol-1-yl)uronium hexafluorophosphate

**SECTION 10: Stability and reactivity**

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
  - Thermal decomposition / conditions to be avoided: Strong heating
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials**: Strong oxidizing agents
- **10.6 Hazardous decomposition products**: No dangerous decomposition products known.

**SECTION 11: Toxicological information**

- **11.1 Information on toxicological effects**
  - Acute toxicity Based on available data, the classification criteria are not met.
  - Primary irritant effect:
    - Skin corrosion/irritation Causes skin irritation.
  - Serious eye damage/irritation
    - Causes serious eye irritation.
  - Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
  - CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
  - Germ cell mutagenicity Based on available data, the classification criteria are not met.
  - Carcinogenicity Based on available data, the classification criteria are not met.
  - Reproductive toxicity 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.

**SECTION 12: Ecological information**

- **12.1 Toxicity**
  - Aquatic toxicity: No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
Safety data sheet  
according to 1907/2006/EC, Article 31  

Printing date 20.04.2018  
Revision: 29.01.2018  

Trade name: HBTU, N,N,N′,N′-Tetramethyl-O-(1H-benzotriazol-1-yl)uronium hexafluorophosphate  

· 12.3 Bioaccumulative potential  No further relevant information available.  
· 12.4 Mobility in soil  No further relevant information available.  
· Additional ecological information:  
  · General notes: Not known to be hazardous to water.  
· 12.5 Results of PBT and vPvB assessment  
  · PBT: Not applicable.  
  · vPvB: Not applicable.  
· 12.6 Other adverse effects  No further relevant information available.  

*SECTION 13: Disposal considerations*  
· 13.1 Waste treatment methods  
  · Recommendation  
  Must not be disposed together with household garbage. Do not allow product to reach sewage system.  
· European waste catalogue  
  · HP 3 Flammable  
  · HP 4 Irritant - skin irritation and eye damage  
· Uncleaned packaging:  
  · Recommendation: Disposal must be made according to official regulations.  

*SECTION 14: Transport information*  
· 14.1 UN-Number  
  · ADR, IMDG, IATA  
  · UN1325  
· 14.2 UN proper shipping name  
  · ADR  
  · UN1325 FLAMMABLE SOLID, ORGANIC, N.O.S. (HBTU, N,N,N′,N′-Tetramethyl-O-(1H-benzotriazol-1-yl)uronium hexafluorophosphate)  
· IMDG, IATA  
  · FLAMMABLE SOLID, ORGANIC, N.O.S. (HBTU, N,N,N′,N′-Tetramethyl-O-(1H-benzotriazol-1-yl)uronium hexafluorophosphate)  
· 14.3 Transport hazard class(es)  
  · ADR  
  · Class  
  · 4.1 (F1) Flammable solids, self-reactive substances and solid desensitised explosives.  
  · Label  
  · 4.1  

(Contd. on page 7)
Trade name: HBTU, N,N,N',N'-Tetramethyl-O-(1H-benzotriazol-1-yl)uronium hexafluorophosphate

- IMDG, IATA

- Class 4.1 Flammable solids, self-reactive substances and solid desensitised explosives.
- Label 4.1

- 14.4 Packing group
- ADR, IMDG, IATA II

- 14.5 Environmental hazards:
- Marine pollutant: No

- 14.6 Special precautions for user
- Warning: Flammable solids, self-reactive substances and solid desensitised explosives.
- Danger code (Kemler): 40
- EMS Number: F-A,S-G
- Stowage Category B

- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.

- Transport/Additional information:

  - ADR
    - Limited quantities (LQ) 1 kg
    - Excepted quantities (EQ) Code: E2
      - Maximum net quantity per inner packaging: 30 g
      - Maximum net quantity per outer packaging: 500 g
    - Transport category 2
    - Tunnel restriction code E

  - IMDG
    - Limited quantities (LQ) 1 kg
    - Excepted quantities (EQ) Code: E2
      - Maximum net quantity per inner packaging: 30 g
      - Maximum net quantity per outer packaging: 500 g

  - UN "Model Regulation": UN 1325 FLAMMABLE SOLID, ORGANIC, N.O.S. (HBTU, N,N,N’,N’-TETRAMETHYL-O-(1H-BENZOTRIAZOL-1-YL)URONIUM HEXAFLUOROPHOSPHATE), 4.1, II

* SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Labelling according to Regulation (EC) No 1272/2008
  The substance is classified and labelled according to the CLP regulation.
Hazard pictograms

GHS02  GHS07

Signal word: Danger

Hazard statements
H228 Flammable solid.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Precautionary statements
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240 Ground and bond container and receiving equipment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313 If skin irritation occurs: Get medical advice/attention.

Directive 2012/18/EU
Named dangerous substances - ANNEX I Substance is not listed.
REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 40
15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information
This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing SDS: Product safety department
Contact: Product safety department

Abbreviations and acronyms:
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Sol. 1: Flammable solids – Category 1
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
* Data compared to the previous version altered.