Target Molecule
Material Safety Data Sheet  Reversion Date 12/02/2016

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier
   Product Name: TBB(NSC 231634)
   Catalog No.: T2695
   CAS No.: 17374-26-4

1.2 Relevant identified uses of the substance or mixture and uses advised against
   Identified uses: Laboratory chemicals, manufacture of substances.

1.3 Details of the supplier of the safety data sheet
   Company: Target Molecule Corp.
   Tel: +1 (857) 239-0968
   Fax: +1 832 582-8590

2. HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture:
   Not a hazardous substance or mixture.

2.2 GHS Label elements, including precautionary statements:
   Not a hazardous substance or mixture.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS
   none

3. COMPOSITION/INFORMATION ON INGREDIENTS

   Substances
   Synonyms: 4,5,6,7-Tetrabromo-2-azabenzimidazole, 4,5,6,7-Tetrahromobenzotriazole,
   NSC 231634, TBBt
   Formula: \( \text{C}_6\text{HBr}_4\text{N}_3 \)
   Molecular weight: 434.71 mg/mol
   CAS-No.: 17374-26-4

4. FIRST AID MEASURES

4.1 Description of first aid measures
   4.11 In Case of Inhalation
      Remove to fresh air; if breathing is difficult, give oxygen; if breathing stops, give artificial respiration.
   4.12 In Case of Skin Contact
      Flush with copious amounts of water; remove contaminated clothing and shoes; call a physician
   4.13 In Case of Eye Contact:
      Check for and remove contact lenses and flush with copious amounts of water; assure adequate flushing by
      separating the eye lids with fingers; call a physician.
   4.14 In Case of Ingestion
      Wash out mouth with copious amounts of water; call a physician.

4.2 Most important symptoms and effects, both acute and delayed
   The most important known symptoms and effects are described in the labelling (see section 2.2).

4.3 Indication of any immediate medical attention and special treatment needed
   No data available

5. FIREFIGHTING MEASURES

5.1 Suitable extinguishing media
   Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special protective equipment for firefighters
   Wear self-contained breathing apparatus for firefighting if necessary.
5.3 Special hazards arising from the substance or mixture
Hazardous combustion products: Carbon oxides, nitrogen oxides (NOx), Hydrogen bromide gas.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Avoid dust formation. Avoid breathing vapors, mist or gas. Avoid breathing dust. As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

6.2 Environmental precautions
Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid formation of dust and aerosols.
Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place.
Recommended storage temperature: Store at -20°C

8. EXPOSURE CONTROLS/PERSOAL PROTECTION

8.1 Control parameters
Components with workplace control parameters
Contains no substances with occupational exposure limit values.

8.2 Exposure controls

8.2.1 Engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.2.2 Personal protective equipment

Eye protection : Safety goggles with side-shields.
Hand protection : Protective gloves.
Skin and body protection : Impervious clothing.
Respiratory protection : Suitable respirator.
Environmental exposure controls : Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Solid</td>
</tr>
<tr>
<td>Odor</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting/freezing point</td>
<td>No data available</td>
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<tr>
<td>Boiling point/range</td>
<td>No data available</td>
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<tr>
<td>Flash point</td>
<td>No data available</td>
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<tr>
<td>Evaporation rate</td>
<td>No data available</td>
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</table>
Flammability (solid, gas)  No data available
Upper/lower flammability or explosive limits  No data available
Vapor pressure  No data available
Vapor density  No data available
Relative density  No data available
Water solubility  No data available
Partition coefficient: noctanol/water  log Pow: 3.757
Auto-ignition temperature  No data available
Decomposition temperature  No data available
Viscosity  No data available
Explosive properties  No data available
Oxidizing properties  No data available

9.2 Other safety information
No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity
No data available.

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
No data available.

10.4 Conditions to avoid
No data available.

10.5 Materials to avoid
Strong oxidizing agents.

10.6 Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - see section 5
Other decomposition products - no data available.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Acute toxicity
No data available.
Skin corrosion/irritation
No data available.
Serious eye damage/eye irritation
No data available.
Respiratory or skin sensitisation
No data available.
Germ cell mutagenicity
No data available.
Carcinogenicity
IARC: No component of this product present at a level equal to or greater than 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH: No component of this product present at a level equal to or greater than 0.1% is identified as a potential or confirmed carcinogen by ACGIH.
NTP: No component of this product present at a level equal to or greater than 0.1% is identified as a
anticipated or confirmed carcinogen by NTP.
OSHA: No component of this product present at a level equal to or greater than 0.1% is identified as a potential or confirmed carcinogen by OSHA.

Reproductive toxicity
No data available.

Specific target organ toxicity - single exposure
No data available.

Specific target organ toxicity - repeated exposure
No data available.

Aspiration hazard
No data available.

Additional Information
RTECS: No data available
The toxicological effects of this product have not been thoroughly studied.

12. ECOLOGICAL INFORMATION

12.1 Toxicity
No data available.

12.2 Persistence and degradability
No data available.

12.3 Bioaccumulative potential
No data available.

12.4 Mobility in soil
No data available.

12.5 Results of PBT and vPvB assessment
BT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.6 Other adverse effects
No data available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Product
Dispose substance in accordance with prevailing country, federal, state and local regulations.
Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods
IMDG
Not dangerous goods
IATA
Not dangerous goods

15. REGULATORY INFORMATION

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
No SARA Hazards.

Massachusetts Right to Know Components
No components are subject to the Massachusetts Right to Know Act.

**Pennsylvania Right to Know Components**

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**New Jersey Right to Know Components**

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**California Prop. 65 Components**

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

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16. OTHER INFORMATION

The above information is believed to be correct based on the present state of our knowledge but does not purport to be complete. The product is for research and trained personnel use only. Target Molecule disclaims all liability for any damage resulting from handling or from contact with the above product.