S-BENZYLTHIURONIUM CHLORIDE FOR SYNTHESIS MSDS

CAS-No.: 538-28-3 MSDS

MATERIAL SAFETY DATA SHEET (MSDS)

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

1.1. Product identifier

Product form : Substance
CAS-No. : 538-28-3
Product code : 1924D
Chemical structure :

\[
\begin{array}{c}
\text{NH} \\
\text{S} \\
\text{NH}_2 \\
\cdot \text{HCl}
\end{array}
\]

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory chemicals, Manufacture of substances

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

LOBA CHEMIE PVT.LTD.
107 Wode House Road, Jehangir Villa, Colaba
400005 Mumbai - INDIA
T +91 22 6663 6663 - F +91 22 6663 6699
info@lobachemie.com - www.lobachemie.com

1.4. Emergency telephone number

Emergency number : + 91 22 6663 6663 (9:00am - 6:00 pm)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Acute toxicity (oral), Category 1
H300

Full text of hazard classes and H-statements : see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]
T; R25
Full text of R-phrases: see section 16
Adverse physicochemical, human health and environmental effects
No additional information available

2.2. Label elements
Labelling according to Regulation (EC) No. 1272/2008 [CLP]
Hazard pictograms (CLP) : GHS06
Signal word (CLP) : Danger
Hazard statements (CLP) : H300 - Fatal if swallowed.
Precautionary statements (CLP) : P264 - Wash hands thoroughly after handling.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor

2.3. Other hazards
No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances
Name : S-BENZYLTHIURONIUM CHLORIDE FOR SYNTHESIS
CAS-No. : 538-28-3

Full text of R- and H-statements: see section 16

3.2. Mixtures
Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures
First-aid measures after inhalation : Assure fresh air breathing. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
First-aid measures after skin contact : Wash with plenty of water/…. Get immediate medical advice/attention.
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
First-aid measures after ingestion : Rinse mouth. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/effects after ingestion : Toxic if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically.
## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

<table>
<thead>
<tr>
<th>Suitable extinguishing media</th>
<th>Unsuitable extinguishing media</th>
</tr>
</thead>
</table>

### 5.2. Special hazards arising from the substance or mixture

No additional information available

### 5.3. Advice for firefighters

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures: Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

<table>
<thead>
<tr>
<th>Protective equipment</th>
<th>Emergency procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use personal protective equipment as required.</td>
<td>Ventilate area.</td>
</tr>
</tbody>
</table>

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. On land, sweep or shovel into suitable containers.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling: Avoid contact with skin and eyes. Do not breathe vapours. Avoid dust formation.

Hygiene measures: Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a well-ventilated place. Keep container tightly closed.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available
8.2. Exposure controls

Hand protection: Protective gloves
Eye protection: Chemical goggles or safety glasses
Skin and body protection: Wear suitable protective clothing
Respiratory protection: [In case of inadequate ventilation] wear respiratory protection.

SECTION 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>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Colour</td>
<td>Colorless.</td>
</tr>
<tr>
<td>Odour</td>
<td>No data available</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>177 - 179 °C</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available
10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
No additional information available

10.4. Conditions to avoid
Direct sunlight. Air contact. Moisture.

10.5. Incompatible materials
No additional information available

10.6. Hazardous decomposition products
No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity : Oral: Fatal if swallowed.

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Reproductive toxicity : Not classified
STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Toxic if swallowed.

SECTION 12: Ecological information

12.1. Toxicity
No additional information available

12.2. Persistence and degradability
No additional information available
12.3. Bioaccumulative potential
No additional information available

12.4. Mobility in soil
No additional information available

12.5. Results of PBT and vPvB assessment
No additional information available

12.6. Other adverse effects
No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Product/Packaging disposal recommendations: Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
Ecology - waste materials: Hazardous waste due to toxicity.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number
UN-No. (ADR) : 2811
UN-No. (IMDG) : 2811
UN-No. (IATA) : 2811
UN-No. (ADN) : 2811
UN-No. (RID) : 2811

14.2. UN proper shipping name
Proper Shipping Name (ADR) : TOXIC SOLID, ORGANIC, N.O.S.
Proper Shipping Name (IMDG) : TOXIC SOLID, ORGANIC, N.O.S.
Proper Shipping Name (IATA) : Toxic solid, organic, n.o.s.
Proper Shipping Name (ADN) : TOXIC SOLID, ORGANIC, N.O.S.
Proper Shipping Name (RID) : TOXIC SOLID, ORGANIC, N.O.S.
Transport document description (ADR) : UN 2811 TOXIC SOLID, ORGANIC, N.O.S., 6.1, II, (D/E)
Transport document description (IMDG) : UN 2811 TOXIC SOLID, ORGANIC, N.O.S., 6.1, II
Transport document description (IATA) : UN 2811 Toxic solid, organic, n.o.s., 6.1, II
Transport document description (ADN) : UN 2811 TOXIC SOLID, ORGANIC, N.O.S., 6.1, II
Transport document description (RID) : UN 2811 TOXIC SOLID, ORGANIC, N.O.S., 6.1, II

14.3. Transport hazard class(es)
ADR
Transport hazard class(es) (ADR) : 6.1
Danger labels (ADR) : 6.1
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IMDG
Transport hazard class(es) (IMDG) : 6.1
Danger labels (IMDG) : 6.1

IATA
Transport hazard class(es) (IATA) : 6.1
Hazard labels (IATA) : 6.1

ADN
Transport hazard class(es) (ADN) : 6.1
Danger labels (ADN) : 6.1

RID
Transport hazard class(es) (RID) : 6.1
Danger labels (RID) : 6.1

14.4. Packing group
Packing group (ADR) : II
Packing group (IMDG) : II
Packing group (IATA) : II
Packing group (ADN) : II
Packing group (RID) : II

14.5. Environmental hazards
Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available
### 14.6. Special precautions for user

**- Overland transport**

<table>
<thead>
<tr>
<th>Classification code (ADR)</th>
<th>T2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special provisions (ADR)</td>
<td>274, 614</td>
</tr>
<tr>
<td>Limited quantities (ADR)</td>
<td>500g</td>
</tr>
<tr>
<td>Excepted quantities (ADR)</td>
<td>E4</td>
</tr>
<tr>
<td>Packing instructions (ADR)</td>
<td>P002, IBC08</td>
</tr>
<tr>
<td>Special packing provisions (ADR)</td>
<td>B4</td>
</tr>
<tr>
<td>Mixed packing provisions (ADR)</td>
<td>MP10</td>
</tr>
<tr>
<td>Portable tank and bulk container instructions (ADR)</td>
<td>T3</td>
</tr>
<tr>
<td>Portable tank and bulk container special provisions (ADR)</td>
<td>TP33</td>
</tr>
<tr>
<td>Tank code (ADR)</td>
<td>SGAH, L4BH</td>
</tr>
<tr>
<td>Tank special provisions (ADR)</td>
<td>TU15, TE19</td>
</tr>
<tr>
<td>Vehicle for tank carriage</td>
<td>AT</td>
</tr>
<tr>
<td>Transport category (ADR)</td>
<td>2</td>
</tr>
<tr>
<td>Special provisions for carriage - Packages (ADR)</td>
<td>V11</td>
</tr>
<tr>
<td>Special provisions for carriage - Loading, unloading and handling (ADR)</td>
<td>CV13, CV28</td>
</tr>
<tr>
<td>Special provisions for carriage - Operation (ADR)</td>
<td>S9, S19</td>
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<tr>
<td>Hazard identification number (Kemler No.)</td>
<td>60</td>
</tr>
</tbody>
</table>

**Orange plates**

![Orange plates](image)

- Tunnel restriction code (ADR): D/E
- EAC code: 2X

**- Transport by sea**

<table>
<thead>
<tr>
<th>Special provisions (IMDG)</th>
<th>274</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packing instructions (IMDG)</td>
<td>P002</td>
</tr>
<tr>
<td>IBC packing instructions (IMDG)</td>
<td>IBC08</td>
</tr>
<tr>
<td>IBC special provisions (IMDG)</td>
<td>B21, B4</td>
</tr>
<tr>
<td>Tank instructions (IMDG)</td>
<td>T3</td>
</tr>
<tr>
<td>Tank special provisions (IMDG)</td>
<td>TP33</td>
</tr>
<tr>
<td>EmS-No. (Fire)</td>
<td>F-A</td>
</tr>
<tr>
<td>EmS-No. (Spillage)</td>
<td>S-A</td>
</tr>
<tr>
<td>Stowage category (IMDG)</td>
<td>B</td>
</tr>
<tr>
<td>Properties and observations (IMDG)</td>
<td>Toxic if swallowed, by skin contact or by inhalation.</td>
</tr>
<tr>
<td>MFAG-No</td>
<td>154</td>
</tr>
</tbody>
</table>

**- Air transport**

<table>
<thead>
<tr>
<th>PCA Excepted quantities (IATA)</th>
<th>E4</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCA Limited quantities (IATA)</td>
<td>Y644</td>
</tr>
<tr>
<td>PCA limited quantity max net quantity (IATA)</td>
<td>1kg</td>
</tr>
<tr>
<td>PCA packing instructions (IATA)</td>
<td>669</td>
</tr>
<tr>
<td>PCA max net quantity (IATA)</td>
<td>25kg</td>
</tr>
<tr>
<td>CAO packing instructions (IATA)</td>
<td>676</td>
</tr>
<tr>
<td>CAO max net quantity (IATA)</td>
<td>100kg</td>
</tr>
<tr>
<td>Special provisions (IATA)</td>
<td>A3, A5</td>
</tr>
</tbody>
</table>
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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

ERG code (IATA) : 6L

- Inland waterway transport
  Classification code (ADN) : T2
  Special provisions (ADN) : 274, 614, 802
  Limited quantities (ADN) : 500 g
  Excepted quantities (ADN) : E4
  Equipment required (ADN) : PP, EP
  Number of blue cones/lights (ADN) : 2

- Rail transport
  Classification code (RID) : T2
  Special provisions (RID) : 274, 614
  Excepted quantities (RID) : E4
  Packing instructions (RID) : P002, IBC08
  Special packing provisions (RID) : B4
  Mixed packing provisions (RID) : MP10
  Portable tank and bulk container instructions (RID) : T3
  Portable tank and bulk container special provisions (RID) : TP33
  Tank codes for RID tanks (RID) : SGAH, L4BH
  Special provisions for RID tanks (RID) : TU15
  Transport category (RID) : 2
  Special provisions for carriage – Packages (RID) : W11
  Special provisions for carriage - Loading, unloading and handling (RID) : CW13, CW28, CW31
  Colis express (express parcels) (RID) : CE9
  Hazard identification number (RID) : 60

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions
S-BENZYLTHIURONIUM CHLORIDE FOR SYNTHESIS is not on the REACH Candidate List
S-BENZYLTHIURONIUM CHLORIDE FOR SYNTHESIS is not on the REACH Annex XIV List

15.1.2. National regulations

Germany
15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of R-, H- and EUH-statements:

<table>
<thead>
<tr>
<th>Acute Tox. 1 (Oral)</th>
<th>Acute toxicity (oral), Category 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>H300</td>
<td>Fatal if swallowed.</td>
</tr>
<tr>
<td>R25</td>
<td>Toxic if swallowed</td>
</tr>
<tr>
<td>T</td>
<td>Toxic</td>
</tr>
</tbody>
</table>

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.