Section 1. Product and Company Identification

Product Name: Brevetoxin 2 (PbTx-2)
Product ID: B6917
Chemical Name (Synonyms): PbTx-2

Supplier: LKT Laboratories, Inc
545 Phalen Blvd.
St. Paul, MN 55130 USA
Ph: 651-644-8424 Fax: 651-644-8357
www.lktlabs.com - getinfo@lktlabs.com

Emergency Phone #: 1-800-424-9300

Section 2. Hazards Identification

GHS Classification:
Acute Toxicity, Oral (Category 1, 2), H300
Acute Toxicity, Skin (Category 1, 2), H310
Acute Toxicity, Inhalation (Category 1, 2), H330

GHS Label elements including precautionary statements

Pictogram
Signal word: Danger
Hazard and precautionary statements
Hazard statements:
H300 - Fatal if swallowed.
H310 - Fatal in contact with skin
H330 - Fatal if inhaled.
Precautionary statements:
P260 - Do not breathe dust, fumes, gas, mist, vapors and spray.
P262 - Do not get in eyes, on skin or on clothing.
P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves, protective clothing, eye protection, and face protection.
P284 - Wear respiratory protection.
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
P304 + 340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P310 - Immediately call a POISON CENTER or doctor/physician.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P320 - Specific treatment is urgent (see supplemental first aid instructions on this label).
P330 - Rinse mouth.
P361 - Remove/Take off immediately all contaminated clothing.
P363 - Wash contaminated clothing before reuse.
P403 + 233 - Store in a well ventilated place. Keep container tightly closed.
P405 - Store locked up.
P501 - Dispose of contents/container carefully to a licensed, professional waste disposal company.

HMIS Classification:
Health hazard: 4
Chronic health hazard: *
Flammability: 1
Physical hazard: 0

NFPA Rating:
Health hazard: 4
Fire hazard: 1
Reactivity hazard: 0

Potential Health Effects:
Inhalation - Acute toxicity. Fatal if inhaled. May cause respiratory irritation.
Skin - Acute toxicity. Fatal in contact with skin. May cause skin irritation.
Eyes - May cause eye irritation.
Ingestion: Acute toxicity. Fatal if swallowed. May be harmful if swallowed.

Section 3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Substances</th>
<th>Formula</th>
<th>Formula Wt.</th>
<th>CAS No.</th>
<th>EC No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula Wt.</td>
<td>895.20</td>
<td>79580-28-2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section 4. First Aid Measures

**General advice**
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**Eye Contact**
In cases of eye contact, check for and remove contact lenses. Flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Consult a physician.

**Skin Contact**
In cases of skin contact, wash with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes and wash before wearing. Consult a physician.

**Inhalation**
In cases of inhalation, remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen and consult a physician. If breathing stops, give artificial respiration and consult a physician.

**Ingestion**
In cases of ingestion, wash mouth out with water and consult the local poison center and a physician.

Section 5. Firefighting Measures

**Flash Point**
Not available.

**Extinguishing Media**
Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

**Firefighting Procedures**
Wear self-contained breathing apparatus and full protective clothing to prevent contact with skin and eyes.

**Unusual Fire Hazards**
Upon thermal decomposition, it may EMIT TOXIC GASES.

Section 6. Accidental Release Measures

**Personal Precautions**
Wear self-contained respiratory protection. Wear chemical resistant gloves, boots and goggles for cleanup. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

**Environmental Precautions**
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods and materials for containment and cleanup**
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. Wash spill site and ventilate area after material pickup is complete.

Section 7. Handling and Storage

**Handling**
Material can be shipped under ambient conditions and is stable under normal handling procedures. Material is highly toxic. Avoid contact with material. Avoid prolonged or repeated exposure. Wash thoroughly after handling material.

**Storage Conditions**
If prolonged storage is required, then keep the material in a tightly, closed container. Recommended storage temperature: -20°C

**Hazardous Decomposition Products**
Avoid contact with strong oxidizing agents. Avoid use of Dimethyl sulfoxide (DMSO) because of its ability to carry toxic materials across membranes.

**Other Remarks**
Lab should be equipped with a safety shower and an eye wash station.
Section 8. Exposure Controls/Personal Protection

**Personal protective equipment**  
**EXPOSURE CONTROLS**  
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.  
**PERSONAL PROTECTION**  
**Eye/face protection**: Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).  
**Skin protection**: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.  
**Body protection**: Complete suit protecting against chemicals, flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.  
**Respiratory protection**: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Handle in a chemical fume hood with adequate ventilation.

Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid</td>
<td>White film.</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Boiling Point</th>
<th>Volatility</th>
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</thead>
<tbody>
<tr>
<td>Not available.</td>
<td>Not available.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Melting Point</th>
<th>Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>265-270 °C</td>
<td>Not available.</td>
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</table>

<table>
<thead>
<tr>
<th>Solubility</th>
<th>pH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soluble in acetone, ethyl acetate, methanol, ethanol and water.</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flash Point</th>
<th>Ignition temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lower explosion limit</th>
<th>Autoignition temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available.</td>
<td>Not available.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Upper explosion limit</th>
<th>Vapor pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Water solubility</th>
<th>Odor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Partition coefficient: n-octanol/water</th>
<th>Odor Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relative vapor density</th>
<th>Evaporation rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Section 10. Stability and Reactivity

**Stability**  
Stable under normal handling procedures.

**Materials To Avoid**  
Strong oxidizing agents.

**Hazardous Decomposition Products**  
Avoid contact with strong oxidizing agents. Avoid use of Dimethyl sulfoxide (DMSO) because of its ability to carry toxic materials across membranes.
### Section 11. Toxicological Information

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oral LD50</strong></td>
<td>Mouse - 6.6 mg/kg lungs, thorax, or respiration: dyspnea Behavioral: tremor, Behavioral: Tremor Peripheral nerve and sensation: Fasciculations</td>
</tr>
<tr>
<td><strong>Skin corrosion/irritation</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Inhalation LC50</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Dermal LD50</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Other information on acute toxicity</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Germ cell mutagenicity</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Reproductive Toxicity</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Aspiration Hazard</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Specific organ toxicity</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Synergistic effects</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Specific organ toxicity</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Additional Information</strong></td>
<td>RTECS: XW5886000</td>
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<tr>
<td><strong>Teratogenicity</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Signs and symptoms of exposure</strong></td>
<td>Not available.</td>
</tr>
</tbody>
</table>

#### Potential Health Effects

- Inhalation - Acute toxicity. Fatal if inhaled. May cause respiratory irritation.
- Skin - Acute toxicity. Fatal in contact with skin. May cause skin irritation.
- Eyes - May cause eye irritation.
- Ingestion: Acute toxicity. Fatal if swallowed. May be harmful if swallowed.

#### Carcinogenicity

Not available

### Section 12. Ecological Information

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Toxicity</strong></td>
<td>Toxic</td>
</tr>
<tr>
<td><strong>Mobility in soil</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>PBT and vPvB assessment</strong></td>
<td>Not available.</td>
</tr>
</tbody>
</table>
Persistence and degradability Not available.
Bioaccumulative potential Not available.

Other adverse effects Not available.

Section 13. Disposal Considerations
Dispose of material according to all federal, state, and local regulations.
Waste Disposal
Offer material to a licensed, professional waste disposal company to dispose of as unused product.

Section 14. Transport Information

DOT (US) UN Number: 2811 Class: 6.1 Packing Group: II
Proper Shipping Name: Toxins, extracted from living sources, solid, n.o.s. (Brevetoxin 2)

IATA UN Number: 2811 Class: 6.1 Packing Group: II
Proper Shipping Name: Toxins, extracted from living sources, solid, n.o.s. (Brevetoxin 2)

IMDG UN Number: 2811 Class: 6.1 Packing Group: II
Proper Shipping Name: TOXINS, EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S. (Brevetoxin 2)

Further Information

Section 15. Regulatory Information

Reach No.

SARA 302 Components Not available.
SARA 313 Components Not available.
SARA 311/312 Components Not available.

Massachusetts Right To Know Components Brevetoxin PbTx-2 CAS #: 79580-28-2 Revision Date:
Pennsylvania Right To Know Components Brevetoxin PbTx-2 CAS #: 79580-28-2 Revision Date:
New Jersey Right To Know Components Brevetoxin PbTx-2 CAS #: 79580-28-2 Revision Date:
California Prop 65 Components Brevetoxin PbTx-2 CAS #: 79580-28-2 Revision Date:

Section 16. Other Information
Other information The information in this document is believed to be correct but is not necessarily complete. LKT does not guarantee the accuracy of the information. The burden of verifying the information in this document rests solely upon the user.