SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Tranylcypromine Hemisulfate

PRODUCT CODES: Cat# 1816-25, 100

MANUFACTURER: BioVision, Inc.
ADDRESS: 155 S. Milpitas Boulevard, Milpitas, CA 95035

EMERGENCY PHONE: 858-373-8066
CHEMTREC PHONE: 800-493-1800
FAX PHONE: 408-493-1801

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
<th>Volume</th>
<th>Safety Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tranylcypromine Hemisulfate</td>
<td>Solid</td>
<td>1816-25: 25 mg</td>
<td>See below</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1816-100: 100 mg</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 3: HAZARDS IDENTIFICATION

<table>
<thead>
<tr>
<th>Product Name/Chemical Name</th>
<th>CAS Number</th>
<th>EC-No.</th>
<th>MW</th>
<th>Chemical Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tranylcypromine Hemisulfate</td>
<td>13492-01-8</td>
<td>236-807-1</td>
<td>182.2</td>
<td>C9H11N·1/2H2SO4</td>
</tr>
</tbody>
</table>

Tranylcypromine Hemisulfate:

Emergency Overview
OSHA Hazards: Target organ effect, Highly toxic by inhalation, Highly toxic by ingestion, Toxic by skin absorption
Target Organs: Heart, Liver
GHS Classification:
- Acute toxicity, Oral (Category 2)
- Acute toxicity, Inhalation (Category 2)
- Acute toxicity, Dermal (Category 3)
- Specific target organ toxicity, repeated exposure (Category 2)

GHS Label elements, including precautionary statements
Pictogram:

Signal word: Danger
Hazard statement(s):
- H300 Fatal if swallowed.
- H311 Toxic in contact with skin.
- H330 Fatal if inhaled.
- H373 May cause damage to heart/liver through prolonged or repeated exposure.
Precautionary statement(s):
- P260 Do not breathe dust/fumes/gas/mist/vapors/spray.
- P270 Do not eat, drink or smoke when using this product.
- 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+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P314 Get medical advice/attention if you feel unwell.
- P330 Rinse mouth.
- P361 Remove/take off immediately all contaminated clothing.
- P363 Wash contaminated clothing before reuse.
- P405 Store locked up.
- P501 Dispose of contents/container to an approved waste disposal plant.

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

NFPA Rating
- Health Hazard: 4
- Fire: 0
- Reactivity Hazard: 0

Potential Health Effects
- Inhalation: May be fatal if inhaled. May cause respiratory tract irritation.
- Skin: Toxic if absorbed through skin. May cause skin irritation.
- Eyes: May cause eye irritation.
- Ingestion: May be fatal if swallowed.
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.
If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact: Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.
In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5: FIRE-FIGHTING MEASURES

Condition of flammability: Not flammable or combustible.
Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special protective equipment for fire-fighters: Wear self-contained breathing apparatus for firefighting if necessary.
Hazardous combustion products: Hazardous combustion products formed under fire conditions—no data available.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist, gas, or dust. Ensure adequate ventilation. Evacuate personnel to safe areas.
Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Methods for cleaning up: Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.
Conditions for safe storage: Keep container tightly closed in a dry and well-ventilated place.
Recommended storage temperature: -20 °C

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.
Personal protective equipment:
Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) 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).
Hand 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.
Eye 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 and body protection: Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Hygiene measures: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Tranylcypromine Hemisulfate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White solid</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>25 mg/ml</td>
</tr>
<tr>
<td>Other Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Specific Gravity (g/ml)</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling Point (°C)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting Point (°C)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash Point (°C)</td>
<td>No data available</td>
</tr>
<tr>
<td>Ignition Temperature (°C)</td>
<td>No data available</td>
</tr>
<tr>
<td>Density</td>
<td>No data available</td>
</tr>
</tbody>
</table>
SECTION 10: STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Tranylcypromine Hemisulfate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical stability</td>
<td>Stable under recommended storage conditions</td>
</tr>
<tr>
<td>Conditions to avoid:</td>
<td>No data available</td>
</tr>
<tr>
<td>Materials to avoid:</td>
<td>No data available</td>
</tr>
<tr>
<td>Hazardous decomposition products:</td>
<td>Carbon oxides, nitrogen oxides, sulfur oxides</td>
</tr>
</tbody>
</table>

SECTION 11: TOXICOLOGICAL INFORMATION

Tranylcypromine Hemisulfate:
- Acute toxicity: LD50 Oral – mouse – 38 mg/kg
- Skin corrosion/irritation: no data available
- Serious eye damage/eye irritation: no data available
- Respiratory or skin sensitization: no data available
- Germ cell mutagenicity: no data available
- Carcinogenicity:
  - IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
  - ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
  - NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
  - OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
- Reproductive toxicity: no data available
- Teratogenicity: no data available
- Specific target organ toxicity – single exposure (GHS): no data available
- Specific target organ toxicity – repeated exposure (GHS): no data available
- Aspiration hazard: no data available
- Potential Health Effects:
  - Inhalation: May be fatal if inhaled. May cause respiratory tract irritation.
  - Skin: Toxic if absorbed through skin. May cause skin irritation.
  - Eyes: May cause eye irritation.
  - Ingestion: May be fatal if swallowed.
- Signs and Symptoms of Exposure: the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
- Synergistic effects: no data available
- Additional information: RTECS: GZ2625000

SECTION 12: ECOLOGICAL INFORMATION

Tranylcypromine Hemisulfate:
- Persistence and degradability: no data available
- Toxicity: no data available
- Bioaccumulative potential: no data available
- Mobility in soil: no data available
- PBT and vPvB assessment: no data available
- Other adverse effects: no data available

SECTION 13: DISPOSAL CONSIDERATIONS

Product: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
- Contaminated packaging: Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

Tranylcypromine Hemisulfate:
- DOT (US): UN-number: 2811, Class: 6.1, Packing group: II; Proper shipping name: Toxic solids, organic, n.o.s. (Tranylcypromine Hemisulfate); Marine pollutant: No; Poison inhalation hazard: No
- IMDG: UN-number: 2811, Class: 6.1, Packing group: II; EMS-No: F-A, S-A; Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. (Tranylcypromine Hemisulfate); Marine pollutant: No
- IATA: UN-number: 2811, Class: 6.1, Packing group: II; Proper shipping name: Toxic solid, organic, n.o.s. (Tranylcypromine Hemisulfate)

SECTION 15: REGULATORY INFORMATION

Tranylcypromine Hemisulfate:
- OSHA Hazards: Target organ effect, Highly toxic by inhalation, Highly toxic by ingestion, Toxic by skin absorption
MATERIAL SAFETY DATA SHEET
Cat# 1816-25, -100, Tranylcypromine Hemisulfate

DSL Status: All components of this product are on the Canadian DSL list.
SARA 302 Components: SARA 302: No chemical in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components: SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title II, Section 313.
SARA 311/312 Hazards: Acute Health Hazard, Chronic Health Hazard
Massachusetts Right To Know Components: No components are subject to the Massachusetts Right to Know Act.
Pennsylvania Right To Know Components: Tranylcypromine Hemisulfate, CAS-No. 13492-01-8
New Jersey Right To Know Components: Tranylcypromine Hemisulfate, CAS-No. 13492-01-8
California Prop. 65 Components: No data available

EU regulations

<table>
<thead>
<tr>
<th>Component</th>
<th>Risk Phrases</th>
<th>Safety Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tranylcypromine Hemisulfate</td>
<td>R24, R26/28,</td>
<td>S22, S36/37/39, S45</td>
</tr>
</tbody>
</table>

SECTION 16: OTHER INFORMATION

OTHER INFORMATION:
PREPARATION INFORMATION:
DISCLAIMER:
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. BioVision, Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.