MATERIAL SAFETY DATA SHEET

Product Name: Atropine Sulfate Injection, USP

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Manufacturer Name  Hospira, Inc.
And Address  275 North Field Drive
Lake Forest, Illinois  60045
USA
Emergency Telephone CHEMTREC: 800 424-9300
Hospira, Inc.  224 212-2055
Product Name  Atropine Sulfate Injection , USP
Synonyms  None

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient Name  Atropine Sulfate
Chemical Formula  C_{34}H_{46}N_{2}O_{6} \cdot H_{2}O_{4}S

<table>
<thead>
<tr>
<th>Component</th>
<th>Approximate Percent by Weight</th>
<th>CAS Number</th>
<th>RTECS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atropine Sulfate</td>
<td>&lt;0.01</td>
<td>55-48-1</td>
<td>CK2450000</td>
</tr>
<tr>
<td>Water</td>
<td>99</td>
<td>7732-18-5</td>
<td>ZC0110000</td>
</tr>
</tbody>
</table>

3. HAZARD INFORMATION

Emergency Overview  In clinical use, this material reverses the effects of acetylcholine in the body producing changes on many organ systems including the eyes, gastrointestinal tract, heart, lung and central nervous system. The active ingredient is considered to be toxic by ingestion.

Occupational Exposure Potential  Information on the absorption of this compound via ingestion, inhalation or skin contact is not available. Avoid liquid aerosol generation and skin contact with solution.

Signs and Symptoms  No signs or symptoms from occupational exposure are known. In clinical use, atropine can cause suppressed salivation, dilated pupils, blurred vision, hot/dry sensation, disorientation, increased heart rate, constipation, nausea, urinary retention and hesitancy, palpitation, dizziness, drowsiness, decreased bronchi secretion, photophobia, dry mouth, fever, glaucoma, difficulty breathing, flushing, rashes and vomiting.

Medical Conditions  Sensitivity to atropine and belladonna alkaloids. Concurrent glaucoma, tachycardia, gastrointestinal or biliary tract obstruction. Prostate hypertrophy.
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5. FIRST AID MEASURES

**Eye Contact:** Remove from source of exposure. Flush with copious amounts of water. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

**Skin Contact:** Remove from source of exposure. Flush with copious amounts of water. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

**Inhalation:** Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

**Ingestion:** Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

5. FIRE FIGHTING MEASURES

**Flammability:** Non-flammable.

**Fire & Explosion Hazard:** None

**Extinguishing Media:** Use extinguishing media appropriate for the underlying cause of fire.

**Special Fire Fighting Procedures**
No special provisions required beyond normal fire fighting equipment such as flame and chemical resistant clothing and self contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

**Spill Cleanup and Disposal**
Absorb liquid with suitable material and clean affected area with soap and water. Dispose of materials according to the applicable federal, state, or local regulations.

7. HANDLING AND STORAGE

**Handling**
No special handling required.

**Storage**
No special storage required for hazard control. For product protection store at controlled room temperature of 15-30°C (59-86°F).

**Special Precautions**
Protect from freezing and extreme heat.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Guidelines**

<table>
<thead>
<tr>
<th>Component</th>
<th>OSHA-PEL</th>
<th>ACGIH-TLV</th>
<th>Hospira EEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atropine Sulfate</td>
<td>8 hr TWA: Not Established</td>
<td>8 hr TWA: Not Established</td>
<td>8 hr TWA: 4 mcg/m3</td>
</tr>
</tbody>
</table>

Notes: OSHA PEL: US Occupational Safety and Health Administration – Permissible Exposure Limit
ACGIH TLV: American Conference of Governmental Industrial Hygienists – Threshold Limit Value.
EEL: Employee Exposure Limit.
TWA: 8 hour Time Weighted Average.
STEL: 15-minute Short Term Exposure Limit.
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Respiratory Protection  
Respiratory protection is not needed during normal product use.

Skin Protection  
If solution contact with unprotected skin is likely, use of impervious gloves is a prudent practice.

Eye Protection  
Eye protection is not required during expected product use conditions but may be warranted should a splash potential exist.

Engineering Controls  
Engineering controls are not needed during normal product use conditions.

9. PHYSICAL/CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance/Physical State</td>
<td>Clear liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Approximately that of water (100 °C, 212 °F).</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>Approximately that of water (0°C, 32 °F).</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Approximately that of water (17.5 mm Hg at 20 °C).</td>
</tr>
<tr>
<td>Vapor Density (Air=1)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Bulk Density</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>Approximately that of water (1.0).</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in water, methanol, ethanol</td>
</tr>
<tr>
<td>pH</td>
<td>3.5 – 6.5</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Chemical Stability  
Stable under standard use and storage conditions.

Incompatibilities  
None

Hazardous Decomposition Products  
Oxides of nitrogen and sulfur.

Hazardous Polymerization  
None

11. TOXICOLOGICAL INFORMATION:

Toxicity

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>Percent</th>
<th>Test Type</th>
<th>Value</th>
<th>Units</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atropine Sulfate</td>
<td>100</td>
<td>LD50</td>
<td>468-765</td>
<td>mg/kg</td>
<td>Rats, Mice</td>
</tr>
</tbody>
</table>

Mutagenicity  
Not determined.

Target Organ Effects  
Atropine is a drug that is used to reverse the effects of acetylcholine at post-ganglionic receptors in the body. It is a potent bronchodilator. When applied directly to the eyes, it dilates the pupils.
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12. ECOLOGICAL INFORMATION:

Aquatic Toxicity  Not determined.

13. DISPOSAL CONSIDERATIONS:

Waste Disposal  Disposal should be performed in accordance with the federal, state or local regulatory requirements.

Container Handling and Disposal  Dispose of container and unused contents in accordance with federal, state, and local regulations.

14. TRANSPORTATION INFORMATION

DOT  Not Regulated

Notes:  DOT - US Department of Transportation Regulations

15. REGULATORY INFORMATION

TSCA Status  Atropine Sulfate is listed on the TSCA inventory.
CERCLA Status  Not Regulated
SARA Status  Not Regulated
RCRA Status  Not Regulated
PROP 65 (Calif.)  Not Regulated

Notes:  TSCA  Toxic Substance Control Act
        CERCLA, US EPA law, Comprehensive Environmental Response, Compensation, and Liability Act
        SARA  Superfund Amendments and Reauthorization Act
        RCRA  US EPA, Resource Conservation and Recovery Act
        Prop 65, California Proposition 65

16. OTHER INFORMATION:

MSDS Coordinator  Global Occupational Toxicology
Date Prepared  September 15, 2005
Date Revised  October 21, 2008

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