



## SAFETY DATA SHEET

**Product Name: Atropine Sulfate Injection**

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Manufacturer Name And Address** Hospira, Inc.  
275 North Field Drive  
Lake Forest, Illinois 60045  
USA

**Emergency Telephone** CHEMTREC: North America: 800-424-9300;  
International 1-703-527-3887; Australia - 61-290372994; UK - 44-870-8200418

**Hospira, Inc., Non-Emergency** 224 212-2000

**Product Name** Atropine Sulfate Injection

**Synonyms** 1 $\alpha$  H, 5 $\alpha$  H-Tropan-3- $\alpha$ -ol ( $\pm$ )-tropate (ester), sulfate (2:1) (salt) monohydrate.

### 2. HAZARD(S) IDENTIFICATION

**Emergency Overview** Atropine Sulfate Injection is a solution containing atropine sulfate, an anticholinergic drug that blocks the effects of acetylcholine in the body resulting in effects on many organ systems including the eyes, gastrointestinal tract, heart, lung and central nervous system. Clinically, atropine sulfate is used to treat a variety of GI disorders, to reduce salivation and secretions during surgery, and to dilate pupils. In the workplace, this material should be considered potentially irritating to the eyes and respiratory tract. Based on clinical use, possible target organs include the eyes, skin, gastrointestinal system, respiratory system, central nervous system, and cardiovascular system.

#### U.S. OSHA GHS Classification

Physical Hazards	Hazard Class	Hazard Category
	Not Classified	Not Classified

Health Hazards	Hazard Class	Hazard Category
	Not Classified	Not Classified

<b>Label Element(s)</b>	
<b>Pictogram</b>	NA
<b>Signal Word</b>	NA
<b>Hazard Statement(s)</b>	NA

#### **Precautionary Statement(s)**

<b>Prevention</b>	Do not breathe vapor or spray. Wash hands thoroughly after handling.
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<b>Response</b>	Get medical attention if you feel unwell.
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IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Active Ingredient Name** Atropine Sulfate Monohydrate  
**Chemical Formula**  $(C_{17}H_{23}NO_3)_2 \cdot H_2SO_4 \cdot H_2O$

Component	Approximate Percent by Weight	CAS Number	RTECS Number
Atropine Sulfate Monohydrate	0.01	73791-47-6	CK2455000

Non-hazardous ingredients include Water for Injection. Hazardous ingredients present at less than 1% include sodium chloride. Hydrochloric acid and/or sodium hydroxide are added to adjust the pH.

### 4. 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** None anticipated for this aqueous product.

**Fire & Explosion Hazard** None anticipated for this aqueous product.

**Extinguishing Media** As with any fire, use extinguishing media appropriate for primary cause of fire such as carbon dioxide, dry chemical extinguishing powder or foam.

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

### 6. ACCIDENTAL RELEASE MEASURES

**Spill Cleanup and Disposal** Isolate area around spill. Put on suitable protective clothing and equipment as specified by site spill control procedures. Absorb the liquid with suitable material and clean affected area with soap and water. Dispose of spill materials according to the applicable federal, state, or local regulations.

### 7. HANDLING AND STORAGE

**Handling** No special handling required under conditions of normal product use.

**Storage** No special storage required for hazard control. For product protection, follow storage recommendations noted on the product case label, the primary container label, or the product insert.

**Special Precautions** No special precautions required for hazard control.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

Component	Exposure Limits			
	OSHA-PEL	ACGIH-TLV	AIHA WEEL	Hospira EEL
Atropine Sulfate Monohydrate	8-hr TWA: Not Established	8-hr TWA: Not Established	8-hr TWA: Not Established	8-hr TWA: Not Established

Notes: OSHA PEL: US Occupational Safety and Health Administration – Permissible Exposure Limit  
 ACGIH TLV: American Conference of Governmental Industrial Hygienists – Threshold Limit Value.  
 AIHA WEEL: Workplace Environmental Exposure Level  
 EEL: Employee Exposure Limit.  
 TWA: 8-hour Time Weighted Average.

#### Respiratory Protection

Respiratory protection is normally not needed during intended product use. However, if the generation of aerosols is likely, and engineering controls are not considered adequate to control potential airborne exposures, the use of an approved air-purifying respirator with a HEPA cartridge (N95 or equivalent) is recommended under conditions where airborne aerosol concentrations are not expected to be excessive. For uncontrolled release events, or if exposure levels are not known, provide respirators that offer a high protection factor such as a powered air purifying respirator or supplied air. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions require respirator use. Personnel who wear respirators should be fit tested and approved for respirator use as required.

#### Skin Protection

If skin contact with the product formulation is likely, the use of latex or nitrile gloves is recommended.

#### Eye Protection

Eye protection is normally not required during intended product use. However, if eye contact is likely to occur, the use of chemical safety goggles (as a minimum) is recommended.

#### Engineering Controls

Engineering controls are normally not needed during the normal use of this product.

## 9. PHYSICAL/CHEMICAL PROPERTIES

<b>Appearance/Physical State</b>	Clear liquid
<b>Odor</b>	NA
<b>Odor Threshold</b>	NA
<b>pH</b>	pH 4.2 (3.0 to 6.5)
<b>Melting point/Freezing Point</b>	NA
<b>Initial Boiling Point/Boiling Point Range</b>	NA
<b>Flash Point</b>	NA
<b>Evaporation Rate</b>	NA
<b>Flammability (solid, gas)</b>	NA
<b>Upper/Lower Flammability or Explosive Limits</b>	NA
<b>Vapor Pressure</b>	NA
<b>Vapor Density (Air =1)</b>	NA
<b>Relative Density</b>	NA
<b>Solubility</b>	NA
<b>Partition Coefficient: n-octanol/water</b>	NA
<b>Auto-ignition Temperature</b>	NA
<b>Decomposition Temperature</b>	NA
<b>Viscosity</b>	NA

**10. STABILITY AND REACTIVITY**

<b>Reactivity</b>	Not determined.
<b>Chemical Stability</b>	Stable under standard use and storage conditions.
<b>Hazardous Reactions</b>	Not determined
<b>Conditions to Avoid</b>	Not determined
<b>Incompatibilities</b>	Not determined
<b>Hazardous Decomposition Products</b>	Not determined. During thermal decomposition, it may be possible to generate irritating vapors and/or toxic fumes of carbon oxides (COx), nitrogen oxides (NOx), and sulfur oxides (SOx).
<b>Hazardous Polymerization</b>	Not anticipated to occur with this product.

**11. TOXICOLOGICAL INFORMATION**

**Acute Toxicity** - Not determined for the product formulation. Information for the ingredients is as follows:

<b>Ingredient(s)</b>	<b>Percent</b>	<b>Test Type</b>	<b>Route of Administration</b>	<b>Value</b>	<b>Units</b>	<b>Species</b>
Atropine Sulfate Monohydrate	100	LD50	Intravenous	56	mg/kg	Mouse
Atropine Sulfate	100	LD50	Intravenous	37,73	mg/k	Rat
				31	mg/kg	Mouse
				70	mg/kg	Rabbit
				60	mg/kg	Dog
Atropine Sulfate	100	LD50	Oral	500	mg/kg	Rat
				468	mg/kg	Mouse

LD 50: Dosage that produces 50% mortality.

<b>Occupational Exposure Potential</b>	Information on the absorption of this product via inhalation or skin contact is not available. Avoid liquid aerosol generation and skin contact.
<b>Signs and Symptoms</b>	None anticipated from normal handling of this product. 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..
<b>Aspiration Hazard</b>	None anticipated from normal handling of this product.
<b>Dermal Irritation/ Corrosion</b>	None anticipated from normal handling of this product.
<b>Ocular Irritation/ Corrosion</b>	None anticipated from normal handling of this product. However, inadvertent contact of this product with eyes may produce stinging followed by blurred vision and sensitivity to light.
<b>Dermal or Respiratory Sensitization</b>	None anticipated from normal handling of this product.
<b>Reproductive Effects</b>	None anticipated from normal handling of this product. Animal reproduction or fertility studies have not been conducted with atropine.
<b>Mutagenicity</b>	Studies have not been performed to evaluate the mutagenic potential of atropine.
<b>Carcinogenicity</b>	Studies have not been performed to evaluate the carcinogenic potential of atropine.

**11. TOXICOLOGICAL INFORMATION: continued**

**Carcinogen Lists**                      **IARC:** Not listed                      **NTP:** Not listed                      **OSHA:** Not listed

**Specific Target Organ Toxicity**    NA  
 – **Single Exposure**

**Specific Target Organ Toxicity**    Based on clinical use, possible target organs include the eyes, skin, gastrointestinal  
 – **Repeat Exposure**                      system, respiratory system, central nervous system, and cardiovascular system.

**12. ECOLOGICAL INFORMATION**

**Aquatic Toxicity**                      Not determined for product.

**Persistence/Biodegradability**    Not determined for product.

**Bioaccumulation**                      Not determined for product.

**Mobility in Soil**                      Not determined for product.

Notes:

**13. DISPOSAL CONSIDERATIONS**

**Waste Disposal**                      All waste materials must be properly characterized. Further, 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**

**ADR/ADG/ DOT STATUS**              Not regulated

**Proper Shipping Name**              NA

**Hazard Class**                          NA

**UN Number**                            NA

**Packing Group**                        NA

**Reportable Quantity**                NA

**ICAO/IATA STATUS**                  Not regulated

**Proper Shipping Name**              NA

**Hazard Class**                          NA

**UN Number**                            NA

**Packing Group**                        NA

**Reportable Quantity**                NA

**IMDG STATUS**                         Not regulated

**Proper Shipping Name**              NA

**Hazard Class**                          NA

**UN Number**                            NA

**Packing Group**                        NA

**Reportable Quantity**                NA

Notes: DOT - US Department of Transportation Regulations

**15. REGULATORY INFORMATION**

<b>US TSCA Status</b>	Exempt. However, atropine sulfate is listed on the TSCA inventory.
<b>US CERCLA Status</b>	Not listed
<b>US SARA 302 Status</b>	Not listed
<b>US SARA 313 Status</b>	Not listed
<b>US RCRA Status</b>	Not listed
<b>US PROP 65 (Calif.)</b>	Not listed

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

**GHS/CLP Classification\***      \*In the EU, classification under GHS/CLP does not apply to certain substances and mixtures, such as medicinal products as defined in Directive 2001/83/EC, which are in the finished state, intended for the final user.

Hazard Class	Hazard Category	Pictogram	Signal Word	Hazard Statement
NA	NA	NA	NA	NA

**Prevention**      Do not breathe vapor or spray.  
Wash hands thoroughly after handling.

**Response**      Get medical attention if you feel unwell.  
  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention.

**EU Classification\***      \*Medicinal products are exempt from the requirements of the EU Dangerous Preparations Directive.

<b>Classification(s)</b>	NA
<b>Symbol</b>	NA
<b>Indication of Danger</b>	NA
<b>Risk Phrases</b>	NA
<b>Safety Phrases</b>	S23: Do not breathe vapor/spray S24: Avoid contact with the skin S25: Avoid contact with eyes S37/39 Wear suitable gloves and eye/face protection.

**16. OTHER INFORMATION**

Notes:

ACGIH TLV	American Conference of Governmental Industrial Hygienists – Threshold Limit Value
CAS	Chemical Abstracts Service Number
CERCLA	US EPA law, Comprehensive Environmental Response, Compensation, and Liability Act
DOT	US Department of Transportation Regulations
EEL	Employee Exposure Limit
IATA	International Air Transport Association
LD <sub>50</sub>	Dosage producing 50% mortality
NA	Not applicable/Not available
NE	Not established
NIOSH	National Institute for Occupational Safety and Health
OSHA PEL	US Occupational Safety and Health Administration – Permissible Exposure Limit
Prop 65	California Proposition 65
RCRA	US EPA, Resource Conservation and Recovery Act
RTECS	Registry of Toxic Effects of Chemical Substances
SARA	Superfund Amendments and Reauthorization Act
STEL	15-minute Short Term Exposure Limit
STOT - SE	Specific Target Organ Toxicity – Single Exposure
STOT - RE	Specific Target Organ Toxicity – Repeated Exposure
TSCA	Toxic Substance Control Act
TWA	8-hour Time Weighted Average

MSDS Coordinator: Hospira GEHS  
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