



## MATERIAL SAFETY DATA SHEET

**Product Name: Diphenhydramine Hydrochloride Injection, USP**

### 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

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

**Emergency Telephone Hospira, Inc.** CHEMTREC: 800 424-9300  
224 212-2055

**Product Name** Diphenhydramine Hydrochloride Injection, USP

**Synonyms** Benadryl

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

**Ingredient Name** Diphenhydramine Hydrochloride  
**Chemical Formula**  $C_{17}H_{22}ClNO$

Component	Approximate Percent by Weight	CAS Number	RTECS Number
Diphenhydramine Hydrochloride	5	147-24-0	KR7000000
Water	95	7732-18-5	ZC0110000

### 3. HAZARD INFORMATION

**Emergency Overview** Diphenhydramine hydrochloride is an antihistamine used for relief of symptoms associated with allergies or colds, and for the treatment of symptoms associated with motion sickness. Toxic by ingestion. May cause nervous system effects.

**Occupational Exposure** Information from occupational exposure is not available.

**Signs and Symptoms** The most frequently observed side effects include sedation, sleepiness, breathing difficulty, disturbed coordination, hypotension, gastrointestinal upset and thickened bronchial secretions.

**Medical Conditions Aggravated by Exposure** Clinical experience suggests narrow-angle glaucoma, peptic ulcers and other gastrointestinal disorders, bladder obstruction, prostatic hypertrophy, asthma, hyperthyroid, cardiovascular disease, hypertension and concurrent use of central nervous system depressants or monoamine oxidase inhibitor therapy.

### 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.

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<b>Skin Contact:</b>	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.
<b>Inhalation:</b>	Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic / supportive care as necessary.
<b>Ingestion:</b>	Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic / supportive care as necessary.

### 5. FIRE FIGHTING MEASURES

<b>Flammability:</b>	Non-flammable
<b>Fire &amp; Explosion Hazard:</b>	None
<b>Extinguishing Media:</b>	Use extinguishing media appropriate for primary cause of fire.
<b>Special Fire Fighting Procedures</b>	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

<b>Spill Cleanup and Disposal</b>	Absorb with suitable material and dispose of materials according to applicable federal, state, or local regulations.
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### 7. HANDLING AND STORAGE

<b>Handling</b>	No special handling required.
<b>Storage</b>	No special storage required for hazard control. For product protection store at 20 - 25° C (68 - 77° F).
<b>Special Precautions</b>	No special precautions.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines			
Component	Exposure limits		
	OSHA-PEL	ACGIH-TLV	Hospira EEL
Diphenhydramine Hydrochloride	8 hr TWA: Not Established	8 hr TWA: Not Established	8 hr TWA: 100 mcg/m3

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.

<b>Respiratory Protection</b>	Respiratory protection is not needed during normal product use.
<b>Skin Protection</b>	If contact with unprotected skin is likely, glove use is prudent practice.

**Product Name: Diphenhydramine Hydrochloride Injection, USP****Eye Protection**

Eye protection is not required during expected product use conditions but may be warranted if eye contact is likely.

**Engineering Controls**

Engineering controls are not needed during normal product use conditions.

**9. PHYSICAL/CHEMICAL PROPERTIES**

<b>Appearance/Physical State</b>	Clear liquid
<b>Odor</b>	Not Determined
<b>Boiling Point</b>	Approximately that of water (100° C, 212° F)
<b>Freezing Point</b>	Approximately that of water (0° C, 32° F)
<b>Vapor Pressure</b>	Approximately that of water (17.5 mm Hg at 20° C)
<b>Vapor Density (Air=1)</b>	Not Applicable
<b>Evaporation Rate</b>	Not Applicable
<b>Bulk Density</b>	Not Applicable
<b>Density</b>	1.005 g/ml
<b>Solubility</b>	Not Determined
<b>pH</b>	5.7 – 6.5

**10. STABILITY AND REACTIVITY**

**Chemical Stability** Stable under standard use and storage conditions.

**Incompatibilities** May react with strong oxidizing agents.

**Hazardous Decomposition Products** May emit toxic smoke.

**Hazardous Polymerization** Will not occur.

**11. TOXICOLOGICAL INFORMATION:****Acute Toxicity – Oral:**

<b>Ingredient(s)</b>	<b>Percent</b>	<b>Test Type</b>	<b>Value</b>	<b>Units</b>	<b>Species</b>
Diphenhydramine HCL	100	LD50	114-500	mg/kg	Rats, mice, and guinea pigs

LD50 is the dosage producing 50% mortality.

Product contains approximately 5% Diphenhydramine.

**Mutagenicity** Not Determined

**Reproductive Effects** No effects identified.

**Target Organ Effects** Possible target organs include skin, eyes, and the central nervous, gastrointestinal, and cardiovascular systems. In animal studies, there is limited evidence of fetotoxicity and possible cleft palate formation.

**12. ECOLOGICAL INFORMATION:**

**Aquatic Toxicity** Not Available

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**13. DISPOSAL CONSIDERATIONS:**

<b>Waste Disposal</b>	Disposal should be performed in accordance with the federal, state or local regulatory requirements.
<b>Container Handling and Disposal</b>	Dispose of container and unused contents in accordance with federal, state, and local regulations.

**14. TRANSPORTATION INFORMATION**

<b>DOT</b>	Not Regulated
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Notes: DOT - US Department of Transportation Regulations

**15. REGULATORY INFORMATION**

<b>TSCA Status</b>	Not Regulated
<b>CERCLA Status</b>	Not Regulated
<b>SARA Status</b>	Not Regulated
<b>RCRA Status</b>	Not Regulated
<b>PROP 65 (Calif.)</b>	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:**

<b>MSDS Coordinator</b>	Global Occupational Toxicology
<b>Date Prepared</b>	September 15, 2005
<b>Date Revised</b>	October 21, 2008

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