



## MATERIAL SAFETY DATA SHEET

**Product Name: Lidocaine Hydrochloride and Epinephrine Injection, USP**

### 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

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

**Note:** Hospira, formerly the Hospital Products Division of Abbott Laboratories, was created as an independent company in May 2004.

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

**Product Name** Lidocaine Hydrochloride and Epinephrine Injection, USP

**Synonyms** None

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

**Ingredient Name** Lidocaine Hydrochloride  
**Chemical Formula** C<sub>14</sub>H<sub>23</sub>ClN<sub>2</sub>O

| Component               | Approximate Percent<br>by Weight | CAS Number | RTECS Number |
|-------------------------|----------------------------------|------------|--------------|
| Lidocaine Hydrochloride | 1.5                              | 73-78-9    | AN7600000    |
| Epinephrine             | 0.0005                           | 51-43-4    | DO2625000    |
| Water                   | 98                               | 7732-18-5  | ZC0110000    |

### 3. HAZARD INFORMATION

**Emergency Overview** In clinical use, this material is used to numb body tissues. Lidocaine is toxic by ingestion and besides its numbing effects, can affect the central nervous system, respiratory system, and cardiovascular system. Epinephrine is a material that stimulates the sympathetic nervous system and heart. It is a potent drug, is highly toxic by ingestion and skin absorption, and can produce adverse effects to the eyes, nervous system, cardiovascular system and respiratory system.

**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.

**Signs and Symptoms** No signs or symptoms from occupational exposure are known. Clinical data suggest the following: nervousness, sweating, fearfulness, anxiety, palpitations, tenseness, restlessness, headache, tremor, dizziness, lightheadedness, tachycardia, nausea, vomiting, respiratory difficulty, fever, chills, dilated pupils, blurred vision and cyanosis. Can also cause electrocardiogram change, disturbed cardiac rhythm, hypertension, metabolic acidosis, and cardiac injury. Lidocaine

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can produce numbness, lightheadedness, drowsiness, apprehension, euphoria, tinnitus, altered vision, vomiting, sensation of hot-cold- numbness, twitching, tremors, dizziness, restlessness, loss of hearing, breathing/swallowing difficulty, stupor, bradycardia, convulsions, unconsciousness, respiratory arrest, hypotension and cardiovascular collapse.

**Medical Conditions Aggravated by Exposure**

Old age, cardiovascular diseases, hypertension, diabetes, hyperthyroidism, respiratory disease, labor, central nervous system disease and ocular disease/ glaucoma. Hypersensitivity to sympathomimetic amines and amide-type local anesthetics.

**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:** Non-flammable.
- Fire & Explosion Hazard:** None
- Extinguishing Media:** Use extinguishing media appropriate for primary 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 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, light and extreme heat.

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Exposure Guidelines**

| Component               | Exposure limits           |                           |   |
|-------------------------|---------------------------|---------------------------|---|
|                         | OSHA-PEL                  | ACGIH-TLV                 | Hospira EEL   |
| Lidocaine Hydrochloride | 8 hr TWA: Not Established | 8 hr TWA: Not Established | 8 hr TWA: 500 mcg/m <sup>3</sup><br>STEL: 5 mg/m <sup>3</sup> |
| Epinephrine             | 8 hr TWA: Not Established | 8 hr TWA: Not Established | 8 hr TWA: 1 mcg/m <sup>3</sup><br>STEL: 20 mcg/m <sup>3</sup> |

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 solution contact with unprotected skin is likely, use of impervious gloves is a prudent practice.                        |
| <b>Eye Protection</b>         | Eye protection is not required during expected product use conditions but may be warranted should a splash potential exist. |
| <b>Engineering Controls</b>   | 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 Applicable                                |
| <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>            | Not Applicable                                |
| <b>Vapor Density (Air=1)</b>     | Not Applicable                                |
| <b>Evaporation Rate</b>          | Not Applicable                                |
| <b>Bulk Density</b>              | Not Determined                                |
| <b>Specific Gravity</b>          | 1.006-1.007                                   |
| <b>Solubility</b>                | Aqueous solution                              |
| <b>pH</b>                        | 3.3 – 5.5                                     |

**10. STABILITY AND REACTIVITY**

|   |   |
|---|---|
| <b>Chemical Stability</b>               | Stable under standard use and storage conditions. |
| <b>Incompatibilities</b>                | Not Determined                                    |
| <b>Hazardous Decomposition Products</b> | Toxic fumes of nitrogen oxides and HCl            |
| <b>Hazardous Polymerization</b>         | Not Determined.                                   |

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**11. TOXICOLOGICAL INFORMATION:**

**Acute Toxicity – Oral:**

| Ingredient(s)           | Percent | Test Type | Value      | Units | Species      |
|-------------------------|---------|-----------|------------|-------|--------------|
| Lidocaine Hydrochloride | 100     | LD50      | 317<br>220 | mg/kg | Rats<br>Mice |
| Epinephrine             | 100     | LD50      | 24-50      | mg/kg | Mice<br>Rats |

LD50 is the dosage producing 50% mortality.

Product contains approximately 1.5% Lidocaine Hydrochloride and less than 0.001% Epinephrine.

**Acute Toxicity – Dermal:**

| Ingredient(s) | Percent | Test Type | Value | Units | Species |
|---------------|---------|-----------|-------|-------|---------|
| Epinephrine   | 100     | LD50(sc)  | 62    | mg/kg | Rats    |

LD50 (sc) is the value for skin contact

**Mutagenicity**

Not Determined

**Target Organ Effects**

In clinical use target organ effects include central nervous system, eyes, respiratory system, cardiovascular system.

**12. ECOLOGICAL INFORMATION:**

**Aquatic Toxicity** Not Available

**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** Not Regulated

**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:**

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Date Prepared September 15, 2005

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