MATERIAL SAFETY DATA SHEET

Product Name: Mepivacaine Hydrochloride Injection, USP (Carbocaine®)

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  Mepivacaine Hydrochloride Injection, USP (Carbocaine®)
Synonyms  None

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient Name  Mepivacaine Hydrochloride
Chemical Formula  C₁₅H₂₃ClN₂O

<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>Mepivacaine Hydrochloride</td>
<td>1-2</td>
<td>1722-62-9</td>
<td>TK6475000</td>
</tr>
<tr>
<td>Water</td>
<td>98-99</td>
<td>7732-18-5</td>
<td>ZC0110000</td>
</tr>
</tbody>
</table>

3. HAZARD INFORMATION

Emergency Overview  In clinical use, this material is used as amide-type local anesthetics for dental procedures. Target organs include the peripheral nervous system and possibly the central nervous system and heart.

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. Clinical data suggests the following: numbness, and mild skin and eye irritation.

Medical Conditions Aggravated by Exposure  Hypersensitivity to the material and/or similar materials. Pre-existing nervous system ailments.
**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 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**

<table>
<thead>
<tr>
<th>Component</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OSHA-PEL</td>
</tr>
<tr>
<td>Mepivacaine Hydrochloride</td>
<td>8 hr TWA: Not Established</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
Product Name: Mepivacaine Hydrochloride Injection, USP (Carbocaine®)

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, colorless solution</td>
</tr>
<tr>
<td>Odor</td>
<td>Not determined</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>1.003-1.006 g/mL</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>Approximately that of water (1.0)</td>
</tr>
<tr>
<td>Solubility</td>
<td>Water</td>
</tr>
<tr>
<td>pH</td>
<td>4.5 – 6.8</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Chemical Stability
Stable under standard use and storage conditions.

Incompatibilities
Methyl vinyl ether, zinc.

Hazardous Decomposition Products
Toxic fumes of HCl and oxides of nitrogen

Hazardous Polymerization
None

11. TOXICOLOGICAL INFORMATION:

Acute 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>Mepivacaine Hydrochloride</td>
<td></td>
<td>LD50</td>
<td>20-32</td>
<td>mg/kg</td>
<td>Guinea Pigs, Mice, Rabbits</td>
</tr>
</tbody>
</table>

LD50 is the dosage producing 50% mortality. Product contains between approximately 1-2% Mepivacaine Hydrochloride.

Acute Toxicity – Dermal:

<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>Mepivacaine Hydrochloride</td>
<td></td>
<td>LD50(sc)</td>
<td>94-260</td>
<td>mg/kg</td>
<td>Guinea Pigs, Mice, Rabbits</td>
</tr>
</tbody>
</table>

LD50 (sc) is the value for skin contact
Product Name: Mepivacaine Hydrochloride Injection, USP (Carbocaine®)

Mutagenicity
Not Determined

Target Organ Effects
In clinical use target organ effects include the peripheral nervous system and possibly the central nervous system and heart.

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
Mepivacaine Hydrochloride 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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