IDENTITY: Dilatiazem HCl in Acetonitrile

SECTION I

Manufacturer: Cerilliant Corporation
811 Paloma Drive, Suite A
Round Rock, TX 78665

Emergency Telephone Number: (512) 238-9974
Date Prepared: June 4, 2012

SECTION II - HAZARDOUS COMPONENTS/IDENTITY INFORMATION

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>Synonyms</th>
<th>CAS Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetonitrile</td>
<td>Acetonitril (German, Dutch), Cyanomethane, Cyanure de methyl (French), Ethanenitrile, Ethyl nitrile, Methane-carbontrifluoride, methane, cyano-, methyl cyanide, methylcyanogen</td>
<td>75-05-8</td>
<td>99.9</td>
</tr>
<tr>
<td>Dilatiazem HCl</td>
<td>1,5-Benzoiazol-4(5H)-one,3-(acyloyl)-5-(2-(2-dimethylamino)ethyl)-2,3-dihydro-2-(4-methoxyphenyl) monohydrochloride, (a)-cis-; Dilacor XR; Dilatiazem hydrochloride; Cardizem; Cardizem CD; Cardizem SR; Cardal, Core</td>
<td>33286-22-5</td>
<td>0.1</td>
</tr>
</tbody>
</table>

SECTION III – Hazard Identification

Flammable. Highly Flammable (EU). Toxic. Toxic by inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory system, and skin. Target Organs: Central Nervous System, Liver.

SECTION IV – First Aid Measures

Eye Contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Ingestion: Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Skin Contact: Wash off with soap and plenty of water. Consult a physician.

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration and transport to a medical facility.

SECTION V - Fire Fighting Measures

Flash Point: 42°F (6°C) (Acetonitrile)

Flammable Limits
Method Used: Closed Cup
LEL: 4.4% UEL: 16.0% (Acetonitrile)

Extinguishing Media: Dry chemical or carbon dioxide extinguisher.

Special Fire Fighting Procedures: Wear SCBA and protective clothing to prevent contact with skin and eyes.

Unusual Fire and Explosion Hazards: Flashback along vapor trail may occur.

SECTION VI- Accidental Release Measures

Evacuate area. Remove all sources of ignition. Use inert absorbent to pick up all spilled material. Transfer to a suitable waste container with non-sparking tools. Wash spill site with appropriate cleaning agent to removal residual traces of spilled material.

SECTION VII- Handling and Storage

Handling: Do not breathe vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged repeated exposure. Wash thoroughly after handling.

Storage: Refrigerate or Freeze. Keep container closed. Keep away from ignition sources.
SECTION VIII-Exposure Controls PERSONAL PROTECTION

As appropriate to quantity handled.
Ventilation - Local Exhaust: Use with forced ventilation.
General Mechanical: Normal laboratory air exchange.
Spectra: N/A
Respiratory Protection: NIOSH approved cartridge type respirator with organic vapor cartridges recommended.
Eye Protection: Safety glasses with side shields or chemical safety goggles.
Protective Gloves: Compatible chemical resistant gloves.
Other Protective Clothing or Equipment: Lab coat
Work/Hygienic Practices: Only experienced personnel should be allowed to handle this material.

<table>
<thead>
<tr>
<th></th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>DFG MAK</th>
<th>Other Limits</th>
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</thead>
<tbody>
<tr>
<td>Acetonitrile</td>
<td>TWA 40 ppm STEL 60 ppm</td>
<td>TWA 20 ppm (skin)</td>
<td>40 ppm (70 mg/m³)</td>
<td>NIOSH REL TWA 34 mg/m³ [nitriles]</td>
</tr>
<tr>
<td>Dinitom HCl</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

SECTION IX-PHYSICAL/ CHEMICAL PROPERTIES

Boiling Point (degrees C): 82 (179.8 °F) (Acetonitrile)
Melting Point (degrees C): -45 (Acetonitrile)
Specific Gravity (Water=1): 0.783 (Acetonitrile)
Vapor Pressure (mm Hg): 100 @ 27 °C (Acetonitrile)
Vapor Density (Air=1): 1.42 (Acetonitrile)
Evaporation Rate (Butyl Acetate=1): 5.79 (Acetonitrile)
Solubility In Water: Miscible (Acetonitrile)
Appearance and Odor: Clear, colorless liquid, ethereal odor (Acetonitrile)

SECTION X-STABILITY AND REACTIVITY

Stability: Stable
Conditions to Avoid: Light, heat, sparks or other sources of ignition.
Incompatible Materials: Acids, bases, oxidizing agents, reducing agents, alkali metals, nitrogen-fluorine compounds, oleum, perchlorates, nitric acids, iodine, dinitrogen tetraoxide.
Hazardous Decomposition: Highly toxic fumes of carbon monoxide, carbon dioxide, and nitrogen oxides.
Hazardous Polymerization: Will not occur
Conditions to Avoid: N/A

SECTION XI-TOXICOLOGICAL INFORMATION

Routes of Entry: Inhalation? Yes Skin? Yes Ingestion? Yes
Cardiogenicity: NTP? N/A IARC? N/A OSHA? N/A

Symptoms of Exposure:
Exposure to Acetonitrile may cause eye and skin irritation, nausea, vomiting, constriction of the throat, confusion, headache, tachycardia, dyspnea, chest pain, cough, bile- or blood-stained emesis, tachypnea, cyanosis, lacrimation, convulsions, coma, diarrhea, abdominal pain, weakness, fatigue, flushing of the face, tightness of the chest, difficult breathing, respiratory depression, shock, dizziness, drowsiness, drop in blood pressure, rapid pulse, lassitude, stupor, irritability, unconsciousness and death.
Toxicity Data:
Acetonitrile
oral-human TD_{50}: 570 mg/kg
inhalation-human TG_{50}: 160 ppm/4H
oral-rat LD_{50}: 2730 mg/kg
inhalation-rat LC_{50}: 7561 ppm/8H
skin-rabbit LD_{50}: 2,000 mg/kg

The toxicological properties of this formulation have not been fully investigated. It should be assumed to have toxic effects and, therefore, procedures appropriate for the safe handling of hazardous chemicals should be followed.

SECTION XII-Ecological Information

Fish: Pimphales promelas (fathead minnow) LC_{50}: 1,840.00 mg/L/96H
Invertebrates: Daphnia magna (Water flea) EC_{50}: 3,600 mg/L/48H

SECTION XIII-Disposal Considerations

Waste materials should be disposed of under conditions that meet Federal, State, and Local environmental control regulations.
Contact a licensed waste disposal specialist to dispose of this material.

SECTION XIV- Transportation Information

<table>
<thead>
<tr>
<th>DOT</th>
<th>IATA</th>
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<tbody>
<tr>
<td>Proper Shipping Name: Acetonitrile</td>
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</tr>
<tr>
<td>UN #: 1848</td>
<td>UN #: 1848</td>
</tr>
<tr>
<td>Class: S</td>
<td>Class: S</td>
</tr>
<tr>
<td>Packing Group: II</td>
<td>Packing Group: II</td>
</tr>
<tr>
<td>Small quantities exempted</td>
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</tbody>
</table>

SECTION XV-Regulatory Information

EU Directives Classification
Symbol of Danger: F Xn

R: 11-20/21/22-36
Risk Statements: Highly Flammable. Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes.

S: 16-36/37
Safety Statements: Keep away from sources of ignition-no smoking. Wear suitable protective clothing and gloves.

SARA 313: Listed

SECTION XVI-Other Information

The information contained herein is believed to be accurate and is supplied in good faith. Cerilliant Corporation makes no warranty with respect to and assumes no legal responsibility for use of or reliance upon this information. Individuals receiving this data must exercise their own judgement in determining its suitability for a particular purpose.