MATERIAL SAFETY DATA SHEET

Computerized form compatible with U. S. Department of Labor, Occupational Safety and Health Administration form.

IDENTITY (As Used on Label & List): C-220 Cooling Water Treatment Compound

Section I – Manufacturer

CASCADE WATER SERVICES
113 BLOOMINGDALE ROAD.
HICKSVILLE, NY 11801

IN A CHEMICAL EMERGENCY CONTACT: CHEMTREC
Emergency Telephone: (800) 424-9300

Date Prepared: 07/05/07 Preparer: J. Nemetz

Section II – Hazardous Ingredients/Identity Information

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>OSHA PEL</th>
<th>ACGIH/TLV</th>
<th>Other Limits Recommend</th>
<th>% (Opt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Hydroxyethylidene-1,1-diphosphonic acid</td>
<td>none</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>Hydroxyethyl iminobis(methylene Phosphonic acid)</td>
<td>none</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>Phosphorous Acid</td>
<td>none</td>
<td>none</td>
<td>none</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Acrylic Copolymer, Partial Sodium Salt</td>
<td>none</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>Sodium Tollytriazole</td>
<td>none</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>Water</td>
<td>CAS# 7732-18-5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section III – Physical/Chemical Characteristics

Boiling Point: - 108 °C
Specific Gravity (H₂O = 1): - 1.06
Vapor Pressure (mm Hg): - unknown
Melting Point: - unknown
Vapor Density (Air = 1): - unknown
Evaporation Rate: - unknown
Solubility in Water: - complete (Butyl Acetate = 1)
Appearance and Odor: - Clear to pale straw colored liquid, no noticeable odor
pH of product as supplied: <2.0

Section IV – Fire and Explosion Hazard Data
Flash Point (Method Used) – not flammable  
Flammable Limits – not flammable

Extinguishing Media –
Water spray, dry chemical, carbon dioxide, or other class B extinguishing media

Special Fire Fighting Procedures –
Water spray should be used to cool fire exposed containers and/or to disperse vapors. Use Niosh/MSHA approved positive pressure self-contained breathing apparatus when material is involved in a fire. Do not get water in containers.

Unusual Fire and Explosion Hazards –
None known

Section V – Reactivity Data

Stability –  Stable: X  
Unstable: 

Conditions to Avoid –
Mixing with strong alkaliies and oxidizers.

Incompatibility (Materials to Avoid) –
Avoid contact with strong alkalis; Will result in violent reactions with evolution of steam. Avoid contact will metal salts of Sulfide and Sulfite which could release toxic gas. Also oxidizers and amines.

Hazardous Decomposition of Byproducts –
Highly toxic phosphines may form is the water is completely removed. CO, CO₂, and oxides of nitrogen may form.

Hazardous Polymerization –
May Occur: 
Will Not Occur: X

Conditions to Avoid –
none known

Section VI – Health Hazard Data

Routes of Entry – (Inhalation?)  
Skin, Eye, Inhalation, and Ingestion

Health Hazards (Acute and Chronic –
Corrosive to all mucous membranes. Can burn skin and eyes. If inhaled, may burn respiratory tract and cause nervous and/or systemic effects. Aspiration may lead to pulmonary edema and/or cardiac abnormalities. If ingested, may cause severe and permanent damage to digestive tract and/or cardiac disturbances. May cause nervous and/or systemic effects.

Carcinogenicity – NTP?  IARC Monographs?  OSHA Regulated?
Not listed as a carcinogen.  ARC – no  OSHA – no

Signs and Symptoms of Exposure –
Itching, irritation, and/or burning of eyes, skin, or mucous membranes.

Medical Conditions Generally Aggravated by Exposure –
none known

Emergency and First Aid Procedures –
Eyes – immediately flush with lots of water for at least 15 minutes holding lids apart to ensure flushing of entire surface. Seek medical attention.  
Skin – Immediately wash with lots of water. Remove contaminated clothes & footwear and wash before reuse.
Ingestion – Treatment should be symptomatic. Do NOT induce vomiting OR give anything by mouth to an unconscious person. If conscious, immediately dilute with several glasses of water or milk. Get immediate medical help.

Inhalation – Remove to fresh air. If breathing has stopped, apply artificial respiration or O₂. Seek immediate medical aid.

---

**Section VII – Precautions for Safe Handling and Use**

Steps to be Taken in Case Material is Released or Spilled –
Stop leaks and contain. Dilute spill with water and neutralize SLOWLY AND CAUTIOSLY with soda ash or sodium bicarbonate. Do not flush chemical into public sewer, septic, or water system.

Waste Disposal Method –
Follow all local, state, and federal EPA regulations for disposal. Unneutralized product, when discharged, is a hazardous waste EPA Corrosive Waste D002.

Precautions to be Taken in Handling and Storing –
Avoid breathing mists. Do not get in eyes, on skin, or on clothing. Do not take internally. Use with adequate ventilation. Store in a cool, dry place. Store away from heat and flame. Keep container closed when not in use. Corrosive to metals.

Other Precautions –
Avoid contamination by air and water. Do not freeze. Wash thoroughly any equipment after handling.

---

**Section VIII – Control Measures**

Respiratory Protection (Specify Type) –
None required for normal use. Use NIOSH mist respirator where mists and vapors are generated.

Ventilation –  
Local Exhaust: Adequate local exhaust necessary  
Mechanical (General): Recommended  
Special:  
Other:  

Protective Gloves: Chemical Impermeable or Rubber gloves  
Eye Protection: Face shield or chemical goggles

Other Protective Clothing or Equipment –
Clothing must protect areas of the body that risk contact. Safety shoes, rubber boots, rubber apron are all recommended. Have an Eyewash and Safety Shower on hand.

Work/Hygienic Practices –
Wash thoroughly after handling.