Material Safety Data Sheet: CHEM-AQUA 15000MT

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: CHEM-AQUA 15000MT
Product Code: 775C
Recommended use: Water treatment chemical
Chemical nature: Aqueous solution
Information on Manufacturer:
CHEM-AQUA
253 ORENDA ROAD
BRAMPTON ONT L6T 1E6

2. HAZARDS IDENTIFICATION

Emergency Overview:
DANGER
Corrosive
Causes skin and eye burns
May cause delayed lung injury and burns
Harmful or fatal if swallowed

Color: Yellow - Dark amber
Physical State: Liquid
Odor: Sweet

Potential Health Effects
Skin contact, Eye contact.

Primary Routes of Entry:
Inhalation, Ingestion.

Acute Effects:
- Eyes: Corrosive to the eyes and may cause severe damage including blindness.
- Skin: Causes skin burns.
- Inhalation: Harmful by inhalation. Causes burns.
- Ingestion: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic Toxicity: Inhaled corrosive substances can lead to a toxic edema of the lungs.

Target Organ Effects: Skin, Eyes, Respiratory system.

Aggravated Medical Conditions: Respiratory disorders, Skin disorders.

Potential Environmental Effects: See Section 12 for additional Ecological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Phosphonobutane-1,2,4-tricarboxylic acid, sodium salt</td>
<td>40372-66-5</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
</tr>
<tr>
<td>Sodium polyacrylate</td>
<td>9003-04-7</td>
</tr>
<tr>
<td>Polymaleic acid, sodium salt</td>
<td>70247-90-4</td>
</tr>
<tr>
<td>Tolyltriazole Sodium Salt</td>
<td>64665-57-2</td>
</tr>
<tr>
<td>Sodium molybdate</td>
<td>7631-95-0</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

General advice: Do not get in eyes, on skin or on clothing. Do not breathe mist.

Eye Contact: Immediately flush eyes for at least 15 minutes. Get medical attention. Get medical attention immediately.

Skin Contact: Remove immediately all contaminated clothing. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately.

Inhalation: Move to fresh air. In case of shortness of breath, give oxygen. If breathing has stopped, apply artificial respiration. Get medical attention immediately.

Ingestion: Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately. Never give anything by mouth to an unconscious person.

Notes to physician: The product causes burns of eyes, skin and mucous membranes. Control of circulatory system, shock therapy if needed.

5. FIRE-FIGHTING MEASURES

Flash Point: > 201 °F / > 94 °C
Autoginition Temperature: No information available.

Flammability Limits in Air:
- Upper: 75%
- Lower: 4%

Suitable Extinguishing Media: Carbon dioxide (CO2). Foam. Water spray. Dry powder. Use extinguishing measures that are appropriate to local circumstances and the
surrounding environment.

Specific hazards arising from the chemical
Contact with metals may evolve flammable hydrogen gas. Material can create slippery conditions.

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions**
Use personal protective equipment. Ensure adequate ventilation. Material can create slippery conditions.

**Environmental Precautions**
Do not flush into surface water or sanitary sewer system.

**Methods for Containment**
Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13)

**Methods for Cleaning Up**
Pick up and transfer to properly labeled containers.

**Neutralizing Agent**
Acetic acid, diluted.

### 7. HANDLING AND STORAGE

**Handling**
Do not get in eyes, on skin or on clothing. Do not breathe mist.

**Storage**
Keep containers tightly closed in a dry, cool and well-ventilated place. Metal containers must be lined. Freezing will affect the physical condition but will not damage the material. Thaw and mix before using.

**Storage Temperature**

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>45 °F / 7 °C</td>
<td>115 °F / 46 °C</td>
</tr>
</tbody>
</table>

**Storage Conditions**

<table>
<thead>
<tr>
<th></th>
<th>Indoor</th>
<th>Outdoor</th>
<th>Heated</th>
<th>Refrigerated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure Guidelines**

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>Ceiling: 2 mg/m³</td>
<td>TWA: 2 mg/m³</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ceiling: 2 mg/m³</td>
</tr>
<tr>
<td>Sodium polyacrylate</td>
<td>3 mg/m³ PNOS</td>
<td>5 mg/m³ PNOR</td>
<td>No data available</td>
</tr>
<tr>
<td>Sodium molybdate</td>
<td>TWA: 0.5 mg/m³</td>
<td>TWA: 5 mg/m³</td>
<td>No data available</td>
</tr>
</tbody>
</table>

**Engineering Measures**
Ensure adequate ventilation, especially in confined areas. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

**Personal Protective Equipment**

| Eye/Face Protection  | Tightly fitting safety goggles. Face-shield. |
| Skin Protection      | Wear suitable protective clothing, Impervious gloves. |
| Respiratory Protection| In case of inadequate ventilation wear respiratory protection. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. |

**General Hygiene Considerations**
Wear protective gloves/clothing. Ensure that eyewash stations and safety showers are close to the workstation location. Remove and wash contaminated clothing before re-use.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Yellow - Dark amber</td>
</tr>
<tr>
<td>Appearance</td>
<td>Transparent</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.201</td>
</tr>
<tr>
<td>Percent Volatile (Volume)</td>
<td>85.3</td>
</tr>
<tr>
<td>VOC Content (g/L)</td>
<td>0</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>0.6 (Air = 1.0)</td>
</tr>
<tr>
<td>Boiling Point/Range</td>
<td>&gt; 212 °F / 100 °C</td>
</tr>
</tbody>
</table>

**Viscosity**
Non viscous

**Odor**
Sweet

**Evaporation Rate**
0.47 (Butyl acetate=1)

**Vapor Pressure**
13.92 mmHg @ 70°F

**Solubility**
Completely soluble

### 10. STABILITY AND REACTIVITY

**Chemical Stability**
Stable. Hazardous polymerization does not occur.

**Conditions to Avoid**
None known

**Incompatible Products**
Strong oxidizing agents, Acids, Light and/or alkaline metals, Aldehydes, Halogenated hydrocarbon, Reducing agents.

**Hazardous Decomposition Products**
Carbon oxides, Nitrogen oxides (NOx), Hydrocarbons, Potassium oxides, Sodium oxides, Oxides of phosphorus, Phosphorus compounds, Acrylate monomers, Hydrogen, by reaction with metals.

**Possibility of Hazardous Reactions**
None under normal processing
### 11. TOXICOLOGICAL INFORMATION

#### Product Information
No information available.

#### Component Information

**Acute Toxicity**

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
<th>Draize Test</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>no data</td>
<td>= 1350 mg/kg (Rabbit)</td>
<td>no data</td>
<td>no data</td>
<td>no data available</td>
</tr>
<tr>
<td>Sodium polyacrylate</td>
<td>5000 mg/kg</td>
<td>2000 mg/kg</td>
<td>no data</td>
<td>no data</td>
<td>no data available</td>
</tr>
<tr>
<td>Sodium molybdate</td>
<td>= 4000 mg/kg (Rat)</td>
<td>no data available</td>
<td>&gt; 2080 mg/m³ (Rat) 4 h</td>
<td>no data</td>
<td>no data available</td>
</tr>
</tbody>
</table>

**Chronic Toxicity**

<table>
<thead>
<tr>
<th>Component</th>
<th>Mutagenicity</th>
<th>Sensitization</th>
<th>Developmental Toxicity</th>
<th>Reproductive Toxicity</th>
<th>Target Organ Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>no data</td>
<td>no data</td>
<td>no data</td>
<td>no data</td>
<td>respiratory system, skin</td>
</tr>
<tr>
<td>Sodium molybdate</td>
<td>no data</td>
<td>no data</td>
<td>no data</td>
<td>no data</td>
<td>respiratory system, eyes, kidneys, blood, bone, pancreas</td>
</tr>
</tbody>
</table>

**Carcinogenicity**

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium molybdate</td>
<td>A3</td>
<td>not applicable</td>
<td>not applicable</td>
<td>not applicable</td>
<td>not applicable</td>
</tr>
</tbody>
</table>

### 12. ECOLOGICAL INFORMATION

#### Product Information

**Toxicity to Fish**

Pimephales promelas (fathead minnow) LC50 1,588 mg/L 96h

#### Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to Algae</th>
<th>Toxicity to Fish</th>
<th>Microtox</th>
<th>Water Flea</th>
<th>log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>no data available</td>
<td>LC50 = 49.4 mg/L, Oncorhynchus mykiss 96 h</td>
<td>no data available</td>
<td>no data available</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Persistence and Degradability**
No information available.

**Bioaccumulation**
No information available.

**Mobility**
No information available.

### 13. DISPOSAL CONSIDERATIONS

**Product Disposal**
Disposal of in accordance with local regulations.

**Container Disposal**
Empty containers should be taken for local recycling, recovery, or waste disposal.

### 14. TRANSPORT INFORMATION

**DOT**

- **Proper Shipping Name**: Corrosive liquid, basic, inorganic, n.o.s.
- **Hazard Class**: 8
- **UN-No**: UN3266
- **Packing Group**: II
- **Description**: UN3266, Corrosive liquid, basic, inorganic, n.o.s.,(Sodium tolytriazole, Sodium hydroxide), 8, PG II

**TDG**

- **Proper shipping name**: Corrosive liquid, basic, inorganic, n.o.s.
- **Hazard Class**: 8
- **UN-No**: UN3266
- **Packing Group**: II
- **Description**: UN3266, Corrosive liquid, basic, inorganic, n.o.s.,(Sodium tolytriazole, Sodium hydroxide), 8, PG II

**ICAO**

- **UN-No**: UN3266
- **Proper Shipping Name**: Corrosive liquid, basic, inorganic, n.o.s.
- **Hazard Class**: 8
- **Packing Group**: II
- **Shipping Description**: UN3266, Corrosive liquid, basic, inorganic, n.o.s.,(Sodium tolytriazole, Sodium hydroxide), 8, PG II
IATA
UN-No: UN3266
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Shipping Description: UN3266, Corrosive liquid, basic, inorganic, n.o.s., (Sodium tolytriazole, Sodium hydroxide), 8, PG II

IMDG/IMO
Proper Shipping Name: Corrosive liquid, basic, inorganic, n.o.s.
Hazard Class: 8
UN-No: UN3266
Packing Group: II
Shipping Description: UN3266, Corrosive liquid, basic, inorganic, n.o.s., (Sodium tolytriazole, Sodium hydroxide), 8, PG II

15. REGULATORY INFORMATION

Inventories
TSCA: Complies
DSL: Complies

U.S. Federal Regulations
SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazardous Categorization
<table>
<thead>
<tr>
<th>Acute Health Hazard</th>
<th>Chronic Health Hazard</th>
<th>Fire Hazard</th>
<th>Sudden Release of Pressure Hazard</th>
<th>Reactive Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

CERCLA
Component: Hazardous Substances RQs
Sodium hydroxide: 1000 lb
CERCLA EHS RQs: Not applicable

Canada
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class
E Corrosive material D2B Toxic materials

16. OTHER INFORMATION

Prepared By: Devon Kebodeaux
Supercedes Date: 12/26/2012
Issuing Date: 07/17/2014
Reason for Revision: No information available.
Glossary: No information available.
List of References. No information available.

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