Section 1. Chemical Product and Company Identification

Product Name: ChemTreat BL1821
Product Use: Closed System Treatment
Supplier's Name: ChemTreat, Inc.
Emergency Telephone Number: (800) 424-9300 (Toll Free)
(703) 527-3887
Address (Corporate Headquarters): 4461 Cox Road
Glen Allen, VA 23060
Telephone Number for Information: (800) 648-4579
Date of MSDS: January 4, 2011

Section 2. Hazard(s) Identification

Signal Word: WARNING!
Hazard Statement(s): May be harmful in contact with skin. May be harmful if inhaled. Harmful if swallowed.
Precautionary Statement(s): No significant health risks are expected from exposures under normal conditions of use.

Section 3. Composition/Hazardous Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Registry #</th>
<th>Wt.%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium tetraborate pentahydrate</td>
<td>12179-04-3</td>
<td>0.5 - 1.5</td>
</tr>
<tr>
<td>Nitrous acid, sodium salt</td>
<td>7632-09-0</td>
<td>10 - 30</td>
</tr>
</tbody>
</table>

Section 4. First Aid Measures

Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Skin: Wash with plenty of soap and water. Call a poison center or doctor/physician if you feel unwell.

Ingestion: DO NOT INDUCE VOMITING. Rinse mouth. Call a POISON CENTER or doctor/physician.
Section 5. Fire Fighting Measures

Flammability of the Product: Not flammable.

Suitable Extinguishing Media: Use extinguishing media suitable to surrounding fire.

Specific Hazards Arising from the Chemical: Although product will not burn, high temperatures can result in decomposition and the release of nitrogen oxides.

Protective Equipment: If product is involved in a fire, wear full protective clothing including a positive-pressure, NIOSH approved, self-contained breathing apparatus.

Section 6. Accidental Release Measures

Personal Precautions: Use appropriate Personal Protective Equipment (PPE).

Environmental Precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.

Methods for Cleaning up: Contain and recover liquid when possible. Flush spill area with water spray.

Other Statements: If RQ (Reportable Quantity) is exceeded, report to National Spill Response Office at 1-800-424-8802.

Section 7. Handling and Storage

Handling: Wear appropriate Personal Protective Equipment (PPE) when handling this product. Do not get in eyes, or on skin and clothing. Wash thoroughly after handling. Do not ingest. Avoid breathing vapors, mist or dust.

Storage: Store away from incompatible materials (see Section 10). Store at ambient temperatures. Keep container securely closed when not in use. Label precautions also apply to empty container. Recondition or dispose of empty containers in accordance with government regulations. For Industrial use only.
Section 8. Exposure Controls/Personal Protection

Exposure Limits

<table>
<thead>
<tr>
<th>Component</th>
<th>Source</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium tetraborate pentahydrate</td>
<td>ACGIH TLV</td>
<td>6 mg/m³ Ceiling; Aerosol</td>
</tr>
<tr>
<td>Nitrous acid, sodium salt</td>
<td>N/E</td>
<td></td>
</tr>
</tbody>
</table>

Carcinogenicity Category

<table>
<thead>
<tr>
<th>Component</th>
<th>Source</th>
<th>Code</th>
<th>Brief Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium tetraborate pentahydrate</td>
<td>ACGIH</td>
<td>TLV-A4</td>
<td>Not classifiable as a human carcinogen.</td>
</tr>
<tr>
<td>Nitrous acid, sodium salt</td>
<td></td>
<td>N/E</td>
<td></td>
</tr>
</tbody>
</table>

Engineering Controls: Use only with adequate ventilation. The use of local ventilation is recommended to control emission near the source.

Personal Protection

Eyes: Wear chemical splash goggles or safety glasses with full-face shield. Maintain eyewash fountain in work area.

Skin: Maintain quick-drench facilities in work area. Wear butyl rubber or neoprene gloves. Wash them after each use and replace as necessary. If conditions warrant, wear protective clothing such as boots, aprons, and coveralls to prevent skin contact.

Respiratory: If misting occurs, use NIOSH approved organic vapor/acid gas dual cartridge respirator with a dust/mist prefilter in accordance with 29 CFR 1910.134.

Section 9. Physical and Chemical Properties

Physical State and Appearance: Liquid, Blue, Clear
Specific Gravity: 1.160 @ 20°C
pH: 12.6 @ 20°C, 100.0%
Freezing Point: 9°F
Flash Point: N/D
Odor: Mild
Melting Point: N/D
Boiling Point: 212°F
Solubility in Water: Complete
Evaporation Rate: N/D
Vapor Density: N/D
Molecular Weight: N/D
Viscosity: N/A
Flammable Limits: N/A
Autoignition Temperature: N/A
Density: 9.70 lb/ga
Vapor Pressure: As Water 0

Section 10. Stability and Reactivity

Chemical Stability: Stable at normal temperatures and pressures.

Incompatibility with Various Substances: Strong oxidizers, Acids, Reducing agents, Amines

Hazardous Decomposition Products: Oxides of nitrogen

Possibility of Hazardous Reactions: None known.

Section 11. Toxicological Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Exposure</th>
<th>Type of Effect</th>
<th>Concentration</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium tetraborate pentahydrate</td>
<td>Oral</td>
<td>LD50</td>
<td>&gt;3200 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>Dermal</td>
<td>LD50</td>
<td>&gt;2000 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td>Nitrous acid, sodium salt</td>
<td>Oral</td>
<td>LD50</td>
<td>132 mg/kg</td>
<td>Rat</td>
</tr>
</tbody>
</table>

Comments: None.

Section 12. Ecological Information

<table>
<thead>
<tr>
<th>Species</th>
<th>Duration</th>
<th>Type of Effect</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceriodaphnia dubia</td>
<td>48h</td>
<td>LC50</td>
<td>6.16 mg/l</td>
</tr>
<tr>
<td>Fathead Minnow</td>
<td>96h</td>
<td>LC50</td>
<td>103 mg/l</td>
</tr>
</tbody>
</table>

Comments: None.

Section 13. Disposal Considerations

Dispose of in accordance with local, state and federal regulations.
EPA corrosivity characteristic hazardous waste D002 when disposed of in the original product form.
Section 14. Transport Information

DOT Classification

DOT Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.
Technical Name: (SODIUM NITRITE)
Hazard Class: Environmentally Hazardous
UN/NA#: UN3082
Packing Group: PGIII

Section 15. Regulatory Information

Inventory Status

United States (TSCA): All ingredients listed.
Canada (DSL/NDSL): All ingredients listed.

Federal Regulations

SARA Title III Rules

Sections 311/312 Hazard Classes

- Fire Hazard: No
- Reactive Hazard: No
- Release of Pressure: No
- Acute Health Hazard: Yes
- Chronic Health Hazard: No

Other Sections

<table>
<thead>
<tr>
<th>Component</th>
<th>Section 313 Toxic Chemical</th>
<th>Section 302 EHS TPQ</th>
<th>CERCLA RQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium tetraborate pentahydrate</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Nitric acid, sodium salt</td>
<td>Yes</td>
<td>N/A</td>
<td>100</td>
</tr>
</tbody>
</table>

State Regulations

California Proposition 65: None known.
Special Regulations

<table>
<thead>
<tr>
<th>Component</th>
<th>States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium tetraborate pentahydrate</td>
<td>MA, WA</td>
</tr>
<tr>
<td>Nitrous acid, sodium salt</td>
<td>DE, MA, NJ, NY, PA</td>
</tr>
</tbody>
</table>

International Regulations

Canada

**WHMIS Classification:** D2B (Toxic Material)

**Controlled Product Regulations (CPR):**

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.

Section 16. Other Information

**HMIS Hazard Rating**

<table>
<thead>
<tr>
<th>Health:</th>
<th>Flammability:</th>
<th>Physical Hazard:</th>
<th>PPE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>X</td>
</tr>
</tbody>
</table>

**Notes:**

The PPE rating depends on circumstances of use. See Section 8 for recommended PPE.

The Hazardous Material Information System (HMIS) is a voluntary, subjective alpha-numeric symbolic system for recommending hazard risk and personal protection equipment information. It is a subjective rating system based on the evaluator's understanding of the chemical associated risks. The end-user must determine if the code is appropriate for their use.

**NSF:** N/A

**FDA:** Product is approved by the USDA for use where the treated water may not contact edible products.

**KOSHER:** This product is certified by the Orthodox Union as kosher pareve. Only when prepared by the following ChemTreat facilities: Ashland, VA; Eldridge, IA; Nederland, TX; Vernon, CA.

**FIFRA:** N/A

**Other:** None
Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;</td>
<td>Less Than</td>
</tr>
<tr>
<td>&gt;</td>
<td>Greater Than</td>
</tr>
<tr>
<td>ACGIH</td>
<td>American Conference of Governmental Industrial Hygienists</td>
</tr>
<tr>
<td>EHS</td>
<td>Environmental Health and Safety Dept</td>
</tr>
<tr>
<td>N/A</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>N/D</td>
<td>Not Determined</td>
</tr>
<tr>
<td>N/E</td>
<td>Not Established</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Health and Safety Dept</td>
</tr>
<tr>
<td>PEL</td>
<td>Personal Exposure Limit</td>
</tr>
<tr>
<td>STEL</td>
<td>Short Term Exposure Limit</td>
</tr>
<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
</tr>
<tr>
<td>TWA</td>
<td>Time Weight Average</td>
</tr>
<tr>
<td>UNK</td>
<td>Unknown</td>
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</tbody>
</table>

Prepared by: Regulatory Affairs Department

Disclaimer

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