Material Safety Data Sheet  # 396

Hercules Chemical Company Inc.
111 South Street
Passaic NJ 07055-7398
Information Telephone: 1-800 221-9330
Internet: www.herchem.com

Issuing Date 8/16/11  Revision Date 10/3/11  Revision Number 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identity: Cloroben® BACTA-Life™
Intended Use: Septic Systems treatment

Manufacturer: Hercules Chemical Company, Inc.
111 South Street
Passaic, New Jersey 07055-7398

Information Telephone: (800) 221-9330
Internet: http://www.herchem.com

Emergency Phone: CHEMTREC: (800) 424-9300

MSDS Date of Preparation: 8/16/11

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Product is a blend of enzymes, non-pathogenic bacteria, nutrients and buffers. Immediate medical attention is required in case of exposure by inhalation, contact with skin, eyes or if swallowed.

Potential Health Effects:

Inhalation: May cause irritation.
Ingestion: May cause irritation of mouth, gastrointestinal tract, nausea, diarrhea and vomiting.
Eye: May cause irritation
Skin: May cause stinging sensation and irritation. May cause allergic reaction in individuals with sensitivity to allergens.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No.</th>
<th>Percentage Wt./Wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urea</td>
<td>57-13-6</td>
<td>10-30</td>
</tr>
<tr>
<td>Ammonium Sulfate</td>
<td>7783-20-2</td>
<td>10-15</td>
</tr>
<tr>
<td>Monoammonium Phosphate</td>
<td>7722-76-1</td>
<td>1-5</td>
</tr>
<tr>
<td>Sodium Chloride</td>
<td>7647-14-5</td>
<td>5-15</td>
</tr>
</tbody>
</table>
Cloroben® BACTA-Life® – MSDS # 396

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS No.</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Chloride</td>
<td>7447-40-7</td>
<td>1-10</td>
</tr>
<tr>
<td>Sodium Percarbonate</td>
<td>15630-89-4</td>
<td>1-5</td>
</tr>
<tr>
<td>Sodium Bicarbonate</td>
<td>144-55-8</td>
<td>20-40</td>
</tr>
<tr>
<td>Tomadol 91-8</td>
<td>68439-46-3</td>
<td>0-1.5</td>
</tr>
<tr>
<td>Esperase 6.0T</td>
<td>N/A</td>
<td>0-1.5</td>
</tr>
<tr>
<td>Bi-Chem TD 800</td>
<td>N/A</td>
<td>10-20</td>
</tr>
</tbody>
</table>

HMIS Hazard Rating: 1, 0, 1, E

4. EMERGENCY AND FIRST AID PROCEDURES.

**Eye:** Irritation. Irrigate thoroughly with water for at least 15 minutes. Hold eyelids apart while flushing to ensure irrigation of the entire area. Obtain medical attention. **Skin:** Drench the skin with soap and plenty of water. Remove contaminated clothing and wash before reuse. If large areas of the skin are damaged or if irritation persists, seek medical attention. **Inhalation:** May cause irritation. Remove to fresh air. If not breathing, administer artificial respiration. Get Medical attention.

**Ingestion:** Irritation of gastrointestinal tract, nausea, diarrhea. Wash out mouth with water. Do not induce vomiting. If patient is conscious, give water to drink. Seek medical attention.

**Notes:**
Never give anything by mouth to an unconscious person

**Immediate Treatment / Antidote:** symptomatic treatment

**Delayed Effects:** Unknown.

5. FIRE FIGHTING MEASURES

**Flashpoint:** Not Applicable

**Flammable Limits:** N/A

**Autoignition Temperature:** Not Applicable

**Extinguishing Media:** water and carbon dioxide

**Unusual Fire or Explosion Hazards:** Product contains organic ingredients that emit toxic fumes upon thermal decomposition.

**Special Fire-Fighting Instructions:** Firefighters and others, who might be exposed to products of combustion, should wear positive pressure self-contained breathing apparatus (SCBA) and full protective clothing.

**Hazardous Combustion products:** Oxides of carbon and sulfur

6. ACCIDENTAL RELEASE MEASURES

**Steps To Be Taken in Case Material is released or Spilled:** Sweep and shovel into a labeled container for proper disposal. Avoid dusting conditions. Use good ventilation. Flush residue with plenty of water. Cleaning personnel should wear respiratory protection against dust.

**Waste Disposal Method:** If permitted, dispose of in an approved waste landfill or dissolve in water and flush down the sewer.

**Personal Precautions:** Wear appropriate PPE to protect against nuisance dust.

**Other Precautions:** None

7. HANDLING AND STORAGE

**Handling**

**Ventilation:** Good general ventilation. Wash hands thoroughly with warm water and soap. Avoid eye contact.

**Recommended procedures & equipment:** avoid creating dust.

**Storage**

Store in a cool dry place
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No.</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urea</td>
<td>57-13-6</td>
<td>10 mg/M3 dust</td>
<td>10 mg/M3 dust</td>
</tr>
<tr>
<td>Ammonium Sulfate</td>
<td>7783-20-2</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Monoammonium Phosphate</td>
<td>7722-76-1</td>
<td>15 mg/M3 dust</td>
<td>15 mg/M3 dust</td>
</tr>
<tr>
<td>Sodium Chloride</td>
<td>7647-14-5</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Potassium Chloride</td>
<td>7447-40-7</td>
<td>N/A</td>
<td>N/A</td>
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<td>15630-89-4</td>
<td>15 mg/M3</td>
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<tr>
<td>Sodium Bicarbonate</td>
<td>144-55-8</td>
<td>15 mg/M3</td>
<td>15 mg/M3</td>
</tr>
<tr>
<td>Tomado 91-8</td>
<td>68439-46-3</td>
<td>N/A</td>
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<td>Esperase 6.0T</td>
<td>N/A</td>
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<tr>
<td>Bi-Chem TD 800</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Respiratory Protection: Mask
Hand: Wash hands after use. Gloves recommended
Engineering Controls: Use with general or local exhaust ventilation.
Skin Protection: Wash after exposure. Overalls and gloves are recommended
Eye Protection: Safety glasses or goggles recommended.
Environmental controls: User in accordance with the instructions.
Hygiene Measures: Always wash thoroughly after handling chemicals.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance And Odor</td>
<td>Free Flowing tan powder with proteinaceous odor</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Physical State</td>
<td>Powder</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility In Water</td>
<td>5-8% self dispersing</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>determined/A</td>
</tr>
<tr>
<td>Soluble Components</td>
<td>0 g/L</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.1</td>
</tr>
<tr>
<td>Viscosity</td>
<td>N/A</td>
</tr>
<tr>
<td>Melting Point</td>
<td>N/A</td>
</tr>
<tr>
<td>pH</td>
<td>N/A</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined</td>
</tr>
<tr>
<td>Solubility in solvent</td>
<td>Not determined</td>
</tr>
<tr>
<td>Conductivity</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Stability: Stable under normal storage and handling conditions.
Conditions to avoid: Strong oxidizing agents, hot water over 140F, caustic drain cleaners, Acids and bleach drain cleaners because they may inactivate the bacteria cultures.

Hazardous decomposition products: oxides of carbon and sulphur

11. TOXICOLOGICAL INFORMATION

HEALTH HAZARDS:

Routes of Entry: Inhalation, Ingestion.
Toxological effects: Urea Oral LD50: 8471 mg/Kg (Rat), Sodium Chloride, oral LD50 3000 mg/Kg (Rat), Potassium Chloride Oral LD50 2600 mg/M3 (Rat), Ammonium Sulfate Oral LD50 2840 mg/Kg (rat), Sodium Percarbonate Oral LD50 1.9 g/kg — 3g/Kg. Monoammonium Phosphate Oral LD50 >1000 mg/Kg, (Rat)
Inhalation: May cause irritation.
Ingestion: Irritation of gastrointestinal tract, nausea, diarrhea
Eye: Irritation
Skin: Redness and irritation
Sensitization: May cause irritation from allergic reaction on some individuals.
Chronic: None
Carcinogenicity: NTP: No IARC: No OSHA: No
Mutagenicity: Mutagenic for mammalian somatic cells.
Medical Conditions Aggravated by Exposure: Repeated dust inhalation may cause breathing difficulties or aggravate any pre-existing asthmatic or other respiratory asthmatic conditions.
Reproductive Toxicity: Unknown
Acute Toxicity Values: N/A.

12. ECOLOGICAL INFORMATION

Environmental Effects: Minimal impact under normal conditions of use and storage. The bacterial cultures are naturally occurring soil type organisms. The other components are unlikely to bio accumulate and are biodegradable.
Mobility: disperses in water
Degradability: contents are biodegradable
Bioaccumulative potential: Not Likely
Aquatic Toxicity: Not Known

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with federal, State and Local environmental control regulations.

14. TRANSPORT INFORMATION

Transportation of Dangerous Goods Description: Not regulated for transport

15. REGULATORY INFORMATION

Inventory Status.
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 that are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories
Acute Health Hazard: Yes
Chronic Health Hazard: No
Fire Hazard: No
Sudden Release of Pressure Hazard: No
Reactive Hazard: No
US State Regulations.

Ammonium Sulfate Cas # 7783-20-2 is on Massachusetts and Pennsylvania Right To Know list.

California Proposition 65
This product contains no chemicals requiring reporting under Proposition 65.

This product has been classified under the CPR and this MSDS discloses information elements required by the CPR.
Canadian WHMIS: Class D-2-B (Eye and Skin Irritant)

16. OTHER INFORMATION

This material must not be used for direct contact with food:
Further details may be available upon request from your local distribution site.
Other: The product has been shown to be free of Salmonella and Shigella using the procedures outlined by AOAC and USDA.

DISCLAIMER:
The information herein has been compiled from sources believed to be reliable, up-to-date, and is accurate to the best of our knowledge. However, Hercules cannot give any guarantees regarding information from other sources, and expressly does not make warranties, nor assumes any liability for its use.