MATERIAL SAFETY DATA SHEET

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: LiquiBlock™ 44-OC

EFFECTIVE DATE: 1 December 2004

CHEMICAL FAMILY: Polyacrylate salt

CHEMICAL NAME: Sodium polyacrylate

COMPANY IDENTIFICATION:
Emerging Technologies Inc.
1005 Norwalk Street
Greensboro, NC 27407 USA

EMERGENCY TELEPHONE: 24 hours a day, 7 days a week
CHEMTREC 1-800-424-9300

SECTION 2 – COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Component</th>
<th>Percent</th>
<th>OSHA HAZARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>9003-04-7</td>
<td>Sodium Polyacrylate</td>
<td>Not Available</td>
<td>Post Treated – Trade Secret</td>
</tr>
</tbody>
</table>

Component Information / Information on Non-Hazardous Components
The components of this product are not regulated as hazardous under 29 CFR and 49 CFR. However, the manufacturer recognizes the potential for respiratory tract irritation as a result of inhalation of this material as a respirable dust. See Sections 8, 11, 14, and 15 for further regulatory information.

SECTION 3 – HAZARDS IDENTIFICATION

Emergency Overview
Sodium polyacrylate is a white, granular, odorless polymer that yields a gel-like material with the addition of water. It is insoluble in water and causes extremely slippery conditions when wet. Although not regulated as a hazardous material, the respirable dust is potential respiratory tract irritant. The manufacturer recommends an eight-hour exposure limit of 0.05 mg/m³.

Potential Health Effects: Eyes
Dust may cause burning, drying, itching, and other discomfort, resulting in reddening of the eyes.

Potential Health Effects: Skin
Exposure to the dust, such as in manufacturing, may aggravate existing skin conditions due to drying effect.

Potential Health Effects: Ingestion
Although not a likely route of entry, tests have shown that polyacrylate absorbents are non-toxic if ingested. However, as in any instance of non-food consumption, seek medical attention in the event of any adverse symptoms.

Potential Health Effects: Inhalation
Exposure to respirable dust may cause respiratory tract and lung irritation and may aggravate existing respiratory conditions.

HMIS Ratings: Health: 1    Fire: 0    Reactivity: 0
Hazard Scale: 0 = Minimal  1 = Slight  2 = Moderate  3 = Serious  4 = Severe  * = Chronic Hazard
SECTION 4 – FIRST AID MEASURES

First Aid: Eyes
Immediately flush with plenty of water. Remove particles remaining under the eyelids. Get medical attention if irritation persists.

First Aid: Skin
Remove polyacrylate absorbent dust from skin using soap and water.

First Aid: Ingestion
Non-toxic by ingestion. However, if adverse symptoms appear, seek medical attention.

First Aid: Inhalation
If inhaled, move to source of fresh air. Seek medical attention if symptoms persist.

SECTION 5 – FIRE-FIGHTING MEASURES

General Fire Hazards
No recognized fire hazards associated with the finished product.

Fire and Explosive Properties
   Flammability Classification: None
   Flash Point: NA
   Flammable Limits - Upper: NE
   Lower: NE

Hazardous Combustion Products
None known.

Extinguishing Media
Dry chemical, foam, carbon dioxide, and water fog. Extremely slippery conditions are created if spilled product comes in contact with water.

Fire Fighting Instructions
Firefighters should wear full protective clothing including self-contained breathing apparatus.

NFPA Ratings: Health: 1   Fire: 0   Reactivity: 0
Hazard Scale:  0 = Minimal  1 = Slight  2 = Moderate  3 = Serious  4 = Severe  * = Chronic Hazard

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Containment Procedures
Sweep or vacuum material when possible and shovel into a waste container.

Clean up procedures
Use caution after contact of product with water, as extremely slippery conditions will result. Residuals maybe flushed with water into the drain for normal wastewater treatment. This is a non-hazardous waste suitable for disposal in an approved solid waste landfill.

Evacuation Procedures
None required.

Special Procedures
Avoid respirable dust inhalation during clean up. Wear appropriate respirator.
SECTION 7 – HANDLING AND STORAGE

**Handling**
Handle as an eye and respiratory tract irritant.

**Storage**
Store in a dry, closed container.

SECTION 8 – EXPOSURE CONTROL / PERSONAL PROTECTION

**Exposure Guidelines**

A: **General Product Information**
   This product is not regulated as a hazardous material. However, the manufacturer recognizes the potential for respiratory tract irritation and recommends an eight-hour exposure limit of 0.05 mg/m³.

B: **Component Exposure Limits**
   No information available.

**Engineering Controls**
Provide local exhaust ventilation to maintain worker exposure to less than 0.05 mg/m³ over an eight-hour period.

**PERSONAL PROTECTIVE EQUIPMENT**

**Personal Protective Equipments: Eyes/Face**
Wear safety glasses with side shields or goggles.

**Personal Protective Equipments: Skin**
Use impervious gloves when handling the product in the manufacturing environment.

**Personal Protective Equipments: Respiratory**
Wear respirator with a high efficiency filter if particulate concentration in the work area exceeds 0.05 mg/m³ over an eight hour time period.

**Personal Protective Equipments: General**
Obey reasonable safety precautions and practice good housekeeping. Wash thoroughly after handling.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance/Odor</td>
<td>White Granular Powder, no odor</td>
</tr>
<tr>
<td>pH</td>
<td>5.5 – 6.5 (1% in water)</td>
</tr>
<tr>
<td>Specific Gravity (Bulk Density)</td>
<td>0.4 – 0.7 g/ml</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>&lt; 10 mm Hg</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>NE</td>
</tr>
<tr>
<td>Melting Point</td>
<td>&gt; 390 ºF</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>NA</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>NA</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Evaporation Rate (%)</td>
<td>&lt; 1.0</td>
</tr>
</tbody>
</table>
SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability
This material is chemically stable under normal and anticipated storage and handling conditions.

Chemical Stability: Conditions to Avoid
None

Incompatibility
None

Hazardous Decomposition Products
Decomposition above 200 °C

Hazardous Polymerization
Will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute and Chronic Toxicity

A: General Product Information:
Acute oral toxicity: LD₅₀ rat
Dose: > 5000 mg/kg
Method: Limit Test

Acute dermal toxicity: LD₅₀ rat
Dose: > 2000 mg/kg
Method: Limit Test

Skin irritation: Rabbit
Method: OECD Nr. 404
Very slight irritant

Eye irritation: Rabbit
Method: OECD Nr. 405
Very slight irritant

Sensitization: Guinea pig
Method: OECD Nr. 406
Result: 0/20
No sensitization

B: Acute Toxicity – LD₅₀/LC₅₀
Sodium polyacrylate (9003-04-7)
LD₅₀: Oral LD50 Rat: > 40g/kg

Carcinogenicity:
Component Carcinogenicity
No information is available.

Chronic Toxicity
Chronic inhalation exposure to rates for a lifetime (two years) using sodium polyacrylate that had been micronized to a respirable particle size (less than 10 microns) produced non-specific inflammation and chronic lung injury at 0.2 mg/m³ and 0.8 mg/m³. Also, at 0.8 mg/m³, tumors were seen in some test animals. In the absence of chronic inflammation, tumors are not expected. There were no adverse effects detected at 0.05 mg/m³.

Mutagenicity
Sodium polyacrylate had no effect in mutagenicity tests.
SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity
A: General Product Information
   Composted polyacrylate absorbents are non-toxic to aquatic or terrestrial organisms at predicted exposure levels.
B: Component Analysis – Ecotoxicity – Aquatic Toxicity
   No information available.

Environmental Fate
Polyacrylate absorbents are relatively inert in aerobic and anaerobic conditions. They are immobile in landfills and soil systems (> 90% retention), with the mobile fraction showing biodegradability. They are also compatible with incineration of municipal solid waste. Incidental down-the-drain disposal of small quantities of polyacrylic absorbents will not affect the performance of wastewater treatment systems.

SECTION 13 – DISPOSAL CONSIDERATIONS

US EPA Waste Number & Descriptions
A: General Product Information
   This product is a non-hazardous waste material suitable for approved sold waste landfills.
B: Component Waste Numbers
   No EPA Waste Numbers are applicable for this product’s components.
Disposal Instructions
   Dispose of in accordance with Local, State, and Federal Regulations.

SECTION 14 – TRANSPORTATION INFORMATION

International Transportation Regulations
   This product is not transport regulated.

SECTION 15 – REGULATORY INFORMATION

US Federal Regulations
A: General Product Information
   This product is not federally regulated as a hazardous material.
B: Clean Air Act
   No information is available.
C: Component Analysis
   No information available.
D: Food and Drug Administration
   No information available.

State Regulations
A: General Product Information
   This product is not regulated by any state as a hazardous material.
B: Component Analysis – State
   None of this product’s components are listed on the state lists from CA, FL, MA, NJ, or PA.
SECTION 15 – REGULATORY INFORMATION, continued

Component Analysis – Inventory

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>TSCA</th>
<th>CAN</th>
<th>EEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Polyacrylate</td>
<td>9003-04-7</td>
<td>Yes</td>
<td>DSL</td>
<td>No</td>
</tr>
</tbody>
</table>

SECTION 16 – OTHER INFORMATION

Revision Information:
Revision Date: 1 December 2004
Supercedes Revision Dated: 16 March 2004

Reason for Revision: Review and update all sections.

Key: N/A – Not Applicable   NE – Not Established

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