

# MATERIAL SAFETY DATA SHEET

## SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: *LiquiBlock™ HS Fines*

EFFECTIVE DATE: 1 July 2013

CHEMICAL FAMILY: Polyacrylate salt

CHEMICAL NAME: Sodium polyacrylate

COMPANY IDENTIFICATION:

 Emerging Technologies inc.  
 402 Edwardia Drive  
 Greensboro, NC 27409 USA

 NON-EMERGENCY TELEPHONE:  
 (336)-851-9097

EMERGENCY TELEPHONE: 24 hours a day, 7 days a week

CHEMTREC 1-800-424-9300

COMPANY CODE: EMTE

## SECTION 2 – 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/m<sup>3</sup>.

### 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. Refer to Section 6 for important containment procedures.

**HMIS Ratings: Health: 1\* Fire: 0 Reactivity: 0 Personal Protection: E**

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe \* = Chronic Hazard

## SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

CAS #	Component	Percent
9003-04-7	Sodium Polyacrylate	> 90
Not Available	Post Treated – Trade Secret	

### 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 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	Flash Point Method
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**

Avoid respirable dust. Do not sweep product. When possible, vacuum the product using a HEPA filter (mandatory when using a vacuum). If no vacuum is available, moisten the product, scoop up and place into an approved disposable 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 Procedures**

Use respiratory protection when exceeding limit (see Section 8) and dust is formed. Ensure sufficient workplace ventilation. Fine dust may form explosive mixture in air. Take measures against electrostatic charge.

**Storage Procedures**

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/m<sup>3</sup>.

**B: Component Exposure Limits**

No information available.

**Engineering Controls**

Provide local exhaust ventilation to maintain worker exposure to less than 0.05 mg/m<sup>3</sup> 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/m<sup>3</sup> 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**

Appearance/Odor	White Granular Powder, no odor
pH	5.5 – 6.5 (1% in water)
Specific Gravity (Bulk Density)	0.4 – 0.7 g/ml
Vapor Pressure	< 10 mm Hg
Vapor Density	NE
Melting Point	> 390 °F
Freezing Point	NA
Boiling Point	NA
Solubility in Water	Insoluble
Evaporation Rate (%)	< 1.0

## 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

None known.

### Hazardous Polymerization

Will not occur.

## SECTION 11 – TOXICOLOGICAL INFORMATION

### Acute and Chronic Toxicity

#### A: General Product Information:

Acute inhalation of respirable dust may cause irritation of the upper respiratory tract and lungs.

#### B: Acute Toxicity – LD<sub>50</sub>/LC<sub>50</sub>

Acute oral toxicity:	LD <sub>50</sub> rat Dose: > 5000 mg/kg Method: Limit Test
Acute dermal toxicity:	LD <sub>50</sub> rat Dose: > 2000 mg/kg Method: Limit Test
Skin irritation:	Rabbit Method: OECD Nr. 404 Not irritant
Eye irritation:	Rabbit Method: OECD Nr. 405 Very slight irritant
Sensitization:	Guinea pig Method: OECD Nr. 406 Result: 0/20 No sensitization

### 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/m<sup>3</sup> and 0.8 mg/m<sup>3</sup>. Also, at 0.8 mg/m<sup>3</sup>, 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/m<sup>3</sup>.

### 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: Ecotoxicity

Biodegradability:	Method: OECD Nr. 302B Practically no degradation.
Physico-chemical removability:	The product is easy to eliminate in water-treatment plants due to its insolubility.
Ciliate toxicity:	<i>Tetrahymenda pyriformis</i> EC <sub>50</sub> > 6000 mg/. Method: Erlanger Ciliate Tests (Prof Graf)
Bacterial toxicity:	<i>Ps. Putida</i> EC <sub>50</sub> > 6000 mg/l 24 hr exposure
Fish toxicity:	<i>Leuciscus idus</i> LC <sub>50</sub> > 5,500 m/l 24 hr. exposure
Fish toxicity:	<i>Brachydanio rerio</i> LC <sub>50</sub> > 4,000 mg/l 96 hour exposure

### 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 solid 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 a hazardous material and is not regulated by the Department of Transportation.

**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.

**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, MN, NJ, or PA.

**Component Analysis – WHMIS IDL**

No components are listed in the WHMIS IDL.

**Component Analysis – Inventory**

Component	CAS #	TSCA	CAN	EEC
Sodium Polyacrylate	9003-04-7	Yes	DSL	Not regulated as a polymer.

**SECTION 16 – OTHER INFORMATION**

**Revision Information:**

Revision Date: 1 July 2013  
 Supercedes Revision Dated: 1 June 2011

**Reason for Revision:** Review and update all sections to conform to ANSI recommendations.

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

**IMPORTANT:** The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the time of publishing. The information given is designed only as a guidance for safe handling, use processing, storage, transportation, disposal and release and is not considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.