

# MATERIAL SAFETY DATA SHEET

## SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: *LiquiBlock™ 2G Series*

EFFECTIVE DATE: 1 July 2013

CHEMICAL FAMILY: Polyacrylate salt

CHEMICAL NAME: Acrylic Acid, Polymers, Sodium Salt

## COMPANY IDENTIFICATION:

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

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. An eight-hour exposure limit of 0.05 mg/m<sup>3</sup> is recommended.

### 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 3 – COMPOSITION / INFORMATION ON INGREDIENTS

CAS #	Component	Percent
9003-04-7	Acrylic Acid Polymer, Sodium Salt	> 85

### 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 potential for respiratory tract irritation as a result of inhalation of this material as a respirable dust is recognized. 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**

Temperature above 200 °C. Thermal decomposition can give toxic products, organic derivatives, and carbon monoxide.

**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. Ensure appropriate exhaust and ventilation at machinery and at places where dust can be generated. (Do not recycle dust-laden air).

### 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/m<sup>3</sup>.

#### B: Component Exposure Limits

No information available.

### Engineering Controls

Ensure sufficient air exchange and/or exhaust in work areas. 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	White Granular Powder
Odor	None
Physical State	Solid
Specific Gravity (Bulk Density)	0.62 – 0.74 g/ml
Melting Point	> 330 °C
Solubility in Water	Swells in water
Auto-Ignition Temperature	> 400 °C
pH	6 - 8

## 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

Store protected from moisture. Keep away from heat and sources of ignition.

### Incompatibility

None

### Hazardous Decomposition Products

Decomposition above 200 °C. Thermal decomposition can give toxic byproducts, organic vapors, and carbon monoxide.

### Hazardous Polymerization

Will not occur.

## SECTION 11 – TOXICOLOGICAL INFORMATION

### Acute and Chronic Toxicity

#### General Product Information:

Corrosiveness	None (rabbit) <sup>1</sup>
Acute oral toxicity:	LD <sub>50</sub> rat > 1600 mg/kg, <sup>1</sup> LD <sub>50</sub> mouse > 3200 mg/kg, <sup>1</sup>
Skin irritation:	Not an irritant (human, rabbit) <sup>1</sup>
Eye irritation:	Not an irritant (rabbit) <sup>1</sup>
Vaginal Mucosal Irritation	Not an irritant (dog) <sup>1</sup>
Ames Mutagenicity Test	Ames test is negative, using Salmonella typhimurium (TA98, TA100, TA1535 and TA1537) and Escherichia coli (WP2uvrA) <sup>1</sup>
Skin Contact sensitization	Non-sensitizing (Guinea pig) <sup>1</sup>
Symptoms of Exposure	Dust may cause eye, nasal, or bronchial irritation

<sup>1</sup> = data of contracted outside laboratory

#### 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>.

## 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 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.

#### D: Food and Drug Administration

No information available.

### Component Analysis – Inventories

<b>TSCA (USA)</b>	Conforms, not listed
<b>EINECS (EC)</b>	Conforms
<b>ENCS (Japan)</b>	Conforms
<b>CEPA (Canada)</b>	All substances listed under the DSL or not required
<b>WHMIS (Canada)</b>	Not a controlled product under this directive

**SECTION 16 – OTHER INFORMATION**

**Revision Information:**

Revision Date: 1 July 2013  
Supersedes Revision Dated: 19 January 2010

**Reason for Revision:** Review and update all sections.

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.