MATERIAL SAFETY DATA SHEET

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ***LiquiBlock™ DGS*** EFFECTIVE DATE: 1 July 2013

CHEMICAL FAMILY: Proprietary Blend

CHEMICAL NAME: Acrylic Copolymer

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:

Product is soluble in water and becomes extremely slippery when wet. Direct eye contact can cause irritation.

Appearance and Odor: Clear to yellow liquid.

Potential Health Effects

Primary Route(s) of Exposure: Inhalation, skin, or eye.
Eye Contact: Can cause eye irritation on contact. Symptoms include stinging, tearing, redness, and swelling of eyes.
Skin contact: Unlikely to cause skin irritation or injury.
Ingestion: No harmful effects.
Inhalation: Symptoms not expected at typical air concentrations.

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

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

SECTION 3 –COMPOSITION / INFORMATION ON INGREDIENTS

CAS #	Common Name	Wt. % of Solids
Proprietary	Acrylic Copolymer	10 – 70 %
Proprietary	Resin	0 – 10%
7732-18-5	Water	0 – 60 %

SECTION 4 – FIRST AID MEASURES

Inhalation: Move person to fresh air. Seek medical attention if irritation persists.

Eye Contact: Flush eyes with running water for at least 15 minutes, while occasionally lifting lower and upper eyelids. Seek medical attention if irritation persists or symptoms develop.

Skin Contact: Wash affected area thoroughly with soap and water. Remove and launder contaminated clothing. Obtain medical attention if irritation or other symptoms develop, or if exposure is extensive.

Ingestion: Do not induce vomiting. Drink copious amounts of water and provide fresh air. Prevent aspiration. Never give anything by mouth to an unconscious person. Seek medical attention if necessary.

SECTION 5 – FIRE-FIGHTING MEASURES

Flash Point and Method (^{O}F): > 212 ^{o}F (> 100°C)

Flammability Limits (%): Not Applicable.

Auto Ignition Temperature (^{O}F): Not Applicable.

Extinguishing Media: Water, foam, CO_2 or dry chemical.

Unusual Fire and Explosion Hazards: None expected.

Fire Fighting Instructions: In a sustained fire wear self-contained breathing apparatus (SCBA) and full protective bunker turnout gear.

Hazardous Combustion Products: Carbon monoxide, carbon dioxide, hydrogen chloride and phosgene.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Releases of this product to the land, water and air may require reporting to federal, state or local authorities.

Personal Precautions: Wear appropriate personal protective equipment.

Environmental Precautions: Slip hazard. Secure area and restrict access. In accordance with state and federal guidelines flush diluted residuals to the drain for normal biological treatment. Disposal of undiluted material must be handled according to local, state and federal regulations.

SECTION 7 – HANDLING AND STORAGE

Storage Temperature: 32 ^{o}F - 122 ^{o}F (0 ^{o}C - 50 ^{o}C).

Storage Pressure: Not applicable.

General: Spilled product creates slippery conditions, especially in contact with water.

SECTION 8 – EXPOSURE CONTROL / PERSONAL PROTECTION

General Advice: These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Engineering Controls: General dilution ventilation and/or local exhaust ventilation should be provided as necessary to control exposures below occupational exposure limits.

Personal Protection:

Respiratory Protection: Use only with adequate ventilation. With insufficient ventilation, or in situations where the potential exists for exceeding the occupational exposure limits, wear a NIOSH approved air purifying respirator with organic cartridges and a P95 dust/mist pre-filter.

Skin Protection: Wear long sleeved shirt, pants, and gloves. The glove material must be impermeable and resistant to the product.

Eye Protection: Safety glasses or goggles must be worn due to the eye irritation potential.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Vapor Pressure (mm Hg @ 20^{o}C): Not established.

Vapor Density (Air=1): Not Applicable

Viscosity: < 1000 mPas, Dynamic at 68° F

Solubility in Water: Fully Soluble

Appearance: Clear to yellow liquid

Odor Type: Characteristic

pH: ~ 5 - 6

Boiling Point: > 212 ^{o}F

SECTION 10– STABILITY AND REACTIVITY

General: Stable

Incompatible Materials and Conditions to Avoid: Strong oxidizing and reducing agents, strong acids, strong alkalis, acid anhydrides, and acid chlorides.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, hydrogen chloride and phosgene.

Hazardous Polymerization: Will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity:

Ingredient	LD_{50} Oral (mg/kg)	LD_{50} Dermal (mg/kg)	LC_{50} Inhalation
Acrylic Copolymer	> 5000 (rat)	> 2000 (rabbit)	Not Available
Resin	> 2000 (rat)	> 2000 (rat)	Not Available

SECTION 12 – ECOLOGICAL INFORMATION

	Acrylic Copolymer	Resin
Elimination (persistence and biodegradability):	> 70% OECD 302B	< 70% OECD 301D
Chemical Oxygen Demand (COD):	130 mg/g	241 g/l
Toxicity to Fish:	LC_{50}/96 h: > 200 mg/l	LC_{50}: > 10 – 100 mg/l
Toxicity to Daphnia	EC_{50}/48 h: > 250 mg/l	EC_{50}: 10 – 100 mg/l
General Note(s):	Water Hazard Class I, slightly hazardous for water.	

Do not allow undiluted product or large quantities of it to reach ground water, water course, or sewage system.

SECTION 13 – DISPOSAL CONSIDERATIONS

RCRA Hazard Class: Non-hazardous.

Disposal must be handled according to local, state and federal regulations. Diluted material can be released to the sewer or public owned treatment works for normal biological treatment. Dispose of undiluted material by incineration or other approved method following state and federal guidelines.

SECTION 14 – TRANSPORTATION INFORMATION

DOT Shipping Names: Not regulated

Hazard Class or Division: None

Secondary: None

Identification No.: None

Packing Group: None.

Label(s) required (if not excepted): None

Special Provisions: None

Packaging Exceptions: None

Non-bulk Packaging: None

Bulk packaging: None

EPA Hazardous Substances: None

RQ: None

Quantity Limitations: **Passenger Aircraft:** None
Cargo Aircraft: None

Marine Pollutants: None

Freight Description: (NMHC)

Hazardous Material Shipping Description: None

SECTION 15 –REGULATORY INFORMATION

TSCA Status: Each ingredient is on the Inventory.

CARCINOGENICITY: The table below indicates whether or not each agency has listed each ingredient as a carcinogen:

Ingredient	ACGIH	IARC	NTP	OSHA
Acrylic Copolymer	No	No	No	No
Resin	No	No	No	No

SARA Title III:

Hazard Categories:

Acute Health:	No
Chronic Health:	No
Fire Hazard:	No
Pressure Hazard:	No
Reactivity Hazard:	No

Reportable Ingredients:

Sec. 302/304:	None
Sec. 313:	None

WHMIS (Canada): **Status:** Not Determined
WHMIS Classifications: Not Determined

SECTION 16 – OTHER INFORMATION

Revision Information:
Revision Date: 1 July 2013
Supersedes Revision Dated: 27 July 2012

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.