SAFETY DATA SHEET

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier:

Trade Name	:	***LiquiBlock™ AT-03S***
Chemical Name	:	Sodium Polyacrylate, Crosslinked
CAS Number	:	9003-04-7

1.2 Recommended use of the chemical and restrictions on use

Recommended Use	:	Industrial Use
Non-recommended Use	:	None known

1.3 Details of the supplier of the safety data sheet

Company	:	**Emerging Technologies, inc.** 402 Edwardia Drive Greensboro, NC 27409 USA
Telephone	:	(336)-851-9097
FAX:	:	(336)-851-2153
Email	:	info@thesuperabsorbentsource.com

1.4 Emergency telephone number

EMERGENCY TELEPHONE: 24 hours a day, 7 days a week			NON-EMERGENCY TELEPHONE:
CHEMTREC	1-800-424-9300	COMPANY CODE: EMTE	(336)-851-9097

2. Hazard Identification

2.1 Classification of the substance or mixture

Not a hazardous substance or mixture

2.2 Label elements

Not a hazardous substance or mixture

2.3 Other Hazards

None known

3. Composition/Information on Ingredients

3.1 Substances

Classification according to regulation 29CFR 1910.1200

Substance name	:	2-Propenoic acid, homopolymer, sodium salt
CAS number	:	9003-04-7
Synonyms	:	Sodium Polyacrylate; Acrylic Acid Polymer, sodium salt

3.2 Mixtures

4. First Aid Measures

4.1 Description of first aid measures

Eyes	:	Immediately flush with plenty of water. Remove particles remaining under the eyelids. Remove contact lenses. Seek medical attention if irritation persists.
Skin	:	Remove polyacrylate absorbent dust from skin using soap and water.
Ingestion	:	Non-toxic by ingestion; if adverse symptoms appear, seek medical attention. Remove as much as possible from the mouth; if conscious, induce vomiting and rinse mouth thoroughly with plenty of water
Inhalation	:	If inhaled, move to source of fresh air. Seek medical attention if symptoms persist.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	:	No known symptoms to date.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. Fire-fighting measures

5.1 Extinguishing Media

Suitable media	:	Foam, carbon dioxide, dry powder, water spray. Extremely slippery conditions are created if spilled product comes in contact with water.
Unsuitable media	:	Full water jet

5.2 Hazardous Combustion Products

In the event of fire, the following can be released: Carbon Dioxide, Carbon Monoxide.

5.3 Fire Fighting Instructions

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

Do not inhale explosion and /or combustion gases.

Use self-contained breathing apparatus.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment; avoid contact with skin and eyes; prohibit inhalation of dust. Use caution after product contacts water as extremely slippery conditions will result.

6.2 Environmental precautions

In the event of a spill, do not flush into drains or waterways; product swells in contact with water. Large quantities can cause serious clogs in sewers or drainage systems.

See section 6.3 for containment and cleanup.

6.3 Methods and material for containment and cleaning up

Containment Procedures

Avoid respirable dust. Do not sweep dry product; pick up mechanically. When possible, vacuum the dry 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 product contacts water as extremely slippery conditions will result. Remove as much product as possible by mechanical means. 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.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	:	Handle as an eye and respiratory tract irritant. Ensure adequate ventilation.
Hygiene	:	Wash hands before breaks and after work. Do not eat, drink or smoke when working. Remove soiled or soaked clothing immediately.
General protective measures	:	Do not inhale dust. Avoid contact with eyes and skin.

7.2 Conditions for safe storage, including any incompatibles

Prevention of fire and explosion

Avoid forming dust.

Storage

Store in a dry, closed container.

8. Exposure controls/personal protection

8.1 Control parameters

This product is not regulated as a hazardous material and it contains no substances with occupational exposure limit values (US). However, there is the potential for respiratory tract irritation as a result of inhalation of this material as a respirable dust and an 8 hour exposure limit of 0.05 mg/m³ is recommended.

8.2 Exposure controls

Engineering controls

Provide local exhaust ventilation to maintain worker exposure to less than 0.05 mg/m³ respirable dust over an 8 hour period.

Personal protective equipment

Obey reasonable safety precautions and practice good housekeeping. Wash thoroughly after handling.

Eye protection	:	This product is not classified as a hazardous substance. Any necessity for eye protection must be determined within the scope of a risk assessment.
Hand protection	:	Glove material: Use impervious gloves
Body protection	:	Protective clothing
Respiratory protection		In case of irritating dust formation, wear a standard dust mask. Wear a respirator with a high efficiency filter is particulate concentration in the work area exceeds 0.05 mg/m³ respirable dust over an 8 hour time period.

9. Physical and chemical properties

9.1 Information on the basic physical and chemical properties

Physical State:	:	Solid
Form	:	Granular
Appearance	:	White granular powder
Odor	:	None
Odor Threshold	:	No data available
pH	:	Approx. 6 (in a 1.0g/L in 0.9% NaCl-solution)
Melting Point	:	> 390 ºF
Boiling Point	:	Not applicable
Flash Point	:	Not applicable
Evaporation Rate	:	No data available
Flammability	:	No data available
Upper Explosion/ Ignition Limit	:	Not measured
Lower Explosion Limit	:	Not measured
Vapor Pressure	:	< 10 mm Hg (<10 hPa)
Relative Vapor Density	:	No data available
Relative Density	:	No data available
Specific Gravity (Bulk Density)	:	0.3 – 0.5 g/ml
Solubility	:	Not measured
Water Solubility	:	Insoluble
Partition Coefficient (n-octanol/water)	:	No data available
Autoignition Temperature	:	Not measured
Thermal Decomposition	:	Above 200°C
Viscosity, kinematic	:	Not applicable
Viscosity, dynamic	:	Not applicable

9.2 Other information

10. Stability and reactivity

NFPA Ratings : Health: 1 Fire: 0 Reactivity: 0

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

10.1 Reactivity

Stable under normal temperatures and pressures.

10.2 Chemical stability

The product is stable under normal conditions.

10.3 Possibility of hazardous reaction

None known to date.

10.4 Conditions to avoid

Temperatures >200°C

10.5 Incompatible materials

None known.

10.6 Hazardous decomposition products

None with proper storage and handling.

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity (oral)	:	LD_{50} rat Dose: > 1,600 mg/kg Method: Limit test	LD_{50} mouse Dose: > 3,200 mg/kg Method: Limit test
Acute toxicity (inhalation)	:	No data available	
Acute toxicity (dermal)	:	LD_{50} rat Dose: > 2,000 mg/kg Method: Limit test	
Irritation/corrosion of the skin	:	Species: rabbit Result: non-irritant Method: OECD 404	
Serious eye damage/ eye irritation	:	Species: rabbit Result: mild irritant Method: OECD 405	
Respiratory/skin sensitization	:	Species: Guinea Pig Result: non-sensitizing Method: OECD 406	
Repeated dose toxicity	:	No data available	
Genotoxicity in vitro	:	Result: not mutagenic Method: Mouse lymphoma test Remarks: not mutagenic in *in vivo* and *in vitro* tests	

US. National Toxicology Program (NTP) Report on Carcinogens

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

US. IARC Monographs on Occupational Exposures to Chemical Agents

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

US. ACGIH Threshold Limit Values

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH

Reprotoxicity/Fertility	:	Not applicable
Reprotoxicity/Development/Teratogenicity	:	Not applicable
Specific Target Organ Toxicity-Single exposure	:	No data available
Specific Target Organ Toxicity-Repeated exposure	:	No data available
Aspiration hazard	:	No aspiration toxicity classification
Other information	:	Proper use provided, no adverse health effects have been observed or have come to our knowledge

12. Ecological information

12.1 Toxicity

Aquatoxicity, fish	:	Species: Leuciscus idus Exposure duration: 96 h LC50: > 5,500 mg/L Method: OECD 203	Species: Danio rerio Exposure duration: 96 h LC50: > 4,000 mg/L Method: OECD 203
Aquatoxicity invertebrates	:	No data available	
Aquatoxicity, algae/aquatic plants	:	No data available	
Toxicity in microorganisms	:	Species: Pseudomonas putida Exposure duration: 24 h EC50: >6,000 mg/L	
Chronic toxicity in fish	:	No data available	
Chronic toxicity in aquatic invertebrates	:	No data available	
Toxicity in organisms which live in soil	:	No data available	
Ciliate toxicity:	:	*Tetrahymenda pyriformis* EC_{50} > 6000 mg/l Method: Erlanger Ciliate Tests (Prof Graf)	

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.

12.2 Persistence and degradability

Photodegradation	:	No data available
Biological degradability	:	No data available

12.3 Bioaccumulative potential

Bioaccumulation	:	No data available

12.4 Mobility in soil

Environmental distribution	:	Immobile in landfills and soil systems (> 90% retention)

12.5 Results of Persistent, Bioaccumulative and Toxic (PBT) and Very Persistent and Very Bioaccumulative (vPvB) assessment

PBT and vPvB assessment	:	No data available

12.6 Other adverse effects

General Information	:	The product is considered to be a weak water pollutant.

12.7 Additional information

Additional information	:	Polyacrylate absorbents are relatively inert in aerobic and anaerobic conditions. They are also compatible with incineration of municipal solid waste. Incidental down-the-drain disposal of small quantities of polyacrylate absorbents will not affect the performance of wastewater treatment systems.

13. Disposal considerations

13.1 Waste treatment methods

Product	:	Dispose of in accordance with Local, State, and Federal regulations. This product is a non-hazardous waste material suitable for approved solid waste landfills.
Contaminated packaging	:	If empty contaminated containers are recycled or disposed of, the receiver must be informed about possible hazards.
General	:	Destroy the product by incineration if possible or discard in accordance with local, state and federal regulations

14. Transport information

Not dangerous according to transport regulations

14.1	**UN number**	:	None
14.2	**UN proper shipping name**	:	None
14.3	**Transport hazard class(es)**	:	None
14.4	**Packing group**	:	None
14.5	**Environmental hazards**	:	None
14.6	**Special precautions for user**	:	None

15. Regulatory information

Canada:

This product has been classified in accordance with the hazard criteria of the controlled Products Regulation and the (M)SDS contains all information required by the Controlled Products Regulation

Canada	:	WHMIS Classification Not rated This product does not contain components on the WHMIS Ingredient Disclosure List

US Regulations

SARA Title III Section 311/312 Hazard categories	:	No SARA Hazards
Other regulations	:	None

State Right to Know	:	SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313 SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302 ZUSPA_RTK: No components subject to “Right-to-know” legislation in the following states: PA ZUSMA_RTK: No components subject to “Right-to-know” legislation in the following states: MA ZUSNJ_RTK: No components subject to “Right-to-know” legislation in the following states: NJ

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

This product does not contain any chemicals known to the State of California to cause cancer, birth defects or any other harm.

HMIS Ratings	:	Health: 1 Flammability: 0 Reactivity: 0 Personal Protection: 0
Notification Status		
TSCA (USA)	:	Listed/registered or exempted
DSL (CDN)	:	Listed/registered or exempted

16. Other information

List of references

Other information	:	Comply with national laws regulating employee instruction
Revision date	:	7 May 2015
Supercedes revision dated	:	1 July 2013
Reason for revision	:	Review and update all sections Revise to GHS format
Key	:	N/A – Not Applicable NE – Not Established

IMPORTANT: The information provided in this 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.

Legend

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
AND	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADNR	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN)
ASTM	American Society for Testing and Materials
ATP	Adaptation to Technical Progress
BCF	Bioconcentration Factor
BetrSichV	German Ordinance on Industrial Safety and Health
c.c.	closed cup
CAS	Chemical Abstract Services
CESIO	European Committee of Organic Surfactants and their Intermediates
ChemG	German Chemicals Act
CMR	Carcinogenic-mutagenic-toxic for reproduction
DIN	German Institute for Standardization
DMEL	Derived minimum effect level
DNEL	Derived no effect level
EINECS	European Inventory of Existing Commercial Chemical Substances
EC50	Half maximal effective concentration
GefStoffV	German Ordinance on Hazardous Substances
GGVSEB	German Ordinance for road, rail and inland waterway transportation of dangerous goods
GGVSee	German Ordinance for sea transportation of dangerous goods
GLP	Good Laboratory Practice
GMO	Genetic Modified Organism
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
ISO	International Organization for Standardization
LOAEL	Lowest observed adverse effect level
LOEL	Lowest observed effect level
NOAEL	No observed adverse effect level
NOEC	No observed effect concentration
NOEL	No observed effect level
o.c.	open cup
OECD	Organisation for Economic Cooperation and Development
OEL	Occupational Exposure Limit
PBT	Persistent, Bioaccumulative, toxic
PEC	Predicted effect concentration
PNEC	Predicted no effect concentration
REACH	REACH registration
RID	Convention concerning International Carriage by Rail
STOT	Specific Target Organ Toxicity
SVHC	Substances of Very High Concern
TA	Technical Instructions
TPR	Third Party Representative (Art. 4)
TRGS	Technical Rules for Hazardous Substances
VCI	German Chemical Industry Association
VPvB	Very persistent, very Bioaccumulative
VOC	Volatile Organic Compounds
VwVwS	German Administrative Regulation on the Classification of Substances Hazardous to Water into Water Hazard Classes
WGK	Water Hazard Class
WHO	World Health Organization