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

1.1 Product Identifier:

Trade Name: LiquiBlock™ 40 Series
Chemical Name: Acrylamide/Potassium Acrylate Copolymer, Crosslinked
CAS Number: 31212-13-2

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

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

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS number</th>
<th>% Composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acrylamide/Potassium Acrylate Copolymer, Crosslinked</td>
<td>31212-13-2</td>
<td>100</td>
</tr>
</tbody>
</table>

3.2 Mixtures

N/A

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. 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

In case of irritating dust formation, wear a standard dust mask. Wear a respirator with a high efficiency filter if 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

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Solid</td>
</tr>
<tr>
<td>Form</td>
<td>Granular</td>
</tr>
<tr>
<td>Appearance</td>
<td>White granular powder</td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>Approx. 6 (in a 1.0g/L in 0.9% NaCl-solution)</td>
</tr>
<tr>
<td>Melting Point</td>
<td>&gt; 390 °F</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper Explosion/Ignition Limit</td>
<td>Not measured</td>
</tr>
<tr>
<td>Lower Explosion Limit</td>
<td>Not measured</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>&lt; 15 mm Hg (&lt;10 hPa)</td>
</tr>
<tr>
<td>Relative Vapor Density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative Density</td>
<td>No data available</td>
</tr>
<tr>
<td>Specific Gravity (Bulk Density)</td>
<td>0.6 – 0.7 g/ml</td>
</tr>
<tr>
<td>Solubility</td>
<td>Not measured</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Partition Coefficient (n-octanol/water)</td>
<td>No data available</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>Not measured</td>
</tr>
<tr>
<td>Thermal Decomposition</td>
<td>Above 200°C</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Acute toxicity (oral)</th>
<th>LD₅₀ rat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dose: &gt; 5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Method: Limit test</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Acute toxicity (inhalation)</th>
<th>No data available</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Acute toxicity (dermal)</th>
<th>LD₅₀ rat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dose: &gt; 2,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Method: Limit test</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Irritation/corrosion of the skin</th>
<th>Species: rabbit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Result: non-irritant</td>
<td></td>
</tr>
<tr>
<td>Method: OECD 404</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Serious eye damage/ eye irritation</th>
<th>Species: rabbit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Result: mild irritant</td>
<td></td>
</tr>
<tr>
<td>Method: OECD 405</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Respiratory/skin sensitization</th>
<th>Species: Guinea Pig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Result: non-sensitizing</td>
<td></td>
</tr>
<tr>
<td>Method: OECD 406</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Repeated dose toxicity</th>
<th>No data available</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Genotoxicity in vitro</th>
<th>Result: not mutagenic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method: Mouse lymphoma test</td>
<td></td>
</tr>
<tr>
<td>Remarks: not mutagenic in in vivo and in vitro tests</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reprotoxicity/Fertility</th>
<th>Not applicable</th>
</tr>
</thead>
</table>
### 12. Ecological information

#### 12.1 Toxicity

<table>
<thead>
<tr>
<th>Type</th>
<th>Species</th>
<th>Exposure duration</th>
<th>Method</th>
<th>LC50/EC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic toxicity, fish</td>
<td>Leuciscus idus</td>
<td>96 h</td>
<td>OECD 203</td>
<td>&gt; 5,500 mg/L</td>
</tr>
<tr>
<td>Aquatic toxicity, fish</td>
<td>Danio rerio</td>
<td>96 h</td>
<td>OECD 203</td>
<td>&gt; 4,000 mg/L</td>
</tr>
<tr>
<td>Aquatic toxicity, invertebrates</td>
<td></td>
<td></td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Aquatic toxicity, algae/aquatic plants</td>
<td></td>
<td></td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Toxicity in microorganisms</td>
<td>Pseudomonas putida</td>
<td>24 h</td>
<td></td>
<td>&gt; 6,000 mg/L</td>
</tr>
<tr>
<td>Chronic toxicity in fish</td>
<td></td>
<td></td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Chronic toxicity in aquatic invertebrates</td>
<td></td>
<td></td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Toxicity in organisms which live in soil</td>
<td>Tetrahymena pyriformis</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 12.2 Persistence and degradability

<table>
<thead>
<tr>
<th>Type</th>
<th>Method</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Photodegradation</td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Biological degradability</td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Biodegradability</td>
<td>OECD Nr. 302B</td>
<td>Practically no degradation.</td>
</tr>
<tr>
<td>Ciliate toxicity</td>
<td>Erlanger Ciliate Tests</td>
<td>Tetrahymena pyriformis</td>
</tr>
<tr>
<td>Physico-chemical removability</td>
<td></td>
<td>The product is easy to eliminate in water-treatment plants due to its insolubility.</td>
</tr>
</tbody>
</table>

#### 12.3 Bioaccumulative potential

<table>
<thead>
<tr>
<th>Type</th>
<th>Method</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioaccumulation</td>
<td></td>
<td>No data available</td>
</tr>
</tbody>
</table>
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.

DSL: Listed/registered or exempted

WHMIS: 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

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.

TSCA (USA): Listed/registered or exempted

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

State Right to Know:

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

HMIS Ratings:

Health: 1
Flammability: 0
Reactivity: 0
Personal Protection: 0
16. Other information

List of references

Other information: Comply with national laws regulating employee instruction
Revision date: 1 Feb 2018
Supercedes revision dated: 7 May 2015
Reason for revision: New company logo, revise Legend
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

ASTM American Society for Testing and Materials
CAS Chemical Abstract Services
CFR Code of Federal Regulations
EINECS European Inventory of Existing Commercial Chemical Substances
EC50 Half maximal effective concentration
GHS Globally Harmonized System
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
NIOSH National Institute for Occupational Safety and Health
NOAEL No observed adverse effect level
NOEC No observed effect concentration
NOEL No observed effect level
OEL Occupational Exposure Limit
OSHA Occupational Safety and Health Administration
PBT Persistent, Bioaccumulative, toxic
RCRA Resource Conservation and Recovery Act
REACH Regulation for Registration, Evaluation, Authorisation and Restriction of Chemicals: EU regulation 1907/2006
SARA Superfund Amendments and Reauthorization Act
SVHC Substances of Very High Concern
TSCA Toxic Substances Control Act
STOT Specific Target Organ Toxicity
SVHC Substances of Very High Concern
VPvB Very persistent, very Bioaccumulative
VOC Volatile Organic Compounds
WGK Water Hazard Class