SAFETY DATA SHEET: May be used to comply with OSHA’s Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

PRODUCT NAME: SAP Spheres (Super Absorbent Polymer)

SECTION I SUPPLIER’S INFORMATION

M² Polymer Technologies, Inc.
P.O. Box 365
West Dundee, IL 60118
Telephone Number for Information: 847/836-1393
Last Update: August 21, 2013

SECTION II COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Components

<table>
<thead>
<tr>
<th>(Specific Chemical Identity: Common Name(s))</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>% (optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-propenoic acid polymer, crosslinked w/ sodium 2-propenoate</td>
<td>NE</td>
<td>NE</td>
<td>95%</td>
</tr>
<tr>
<td>Water, deionized or distilled</td>
<td></td>
<td></td>
<td>5%</td>
</tr>
</tbody>
</table>

SECTION III HAZARDS IDENTIFICATION

Hazardous Components NONE

Physical & Chemical Hazards If ground to fine, dust particles, an ignition source can form an explosive mixture with air. During thermal decomposition, toxic by-products can be released.

SECTION IV FIRST AID MEASURES

Skin Contact
Flush skin immediately with water if irritation occurs.

Eye Contact
Immediately flush eyes with water and seek medical attention if irritation persists.

Inhalation
Remove to fresh air. Due to the large particle size, SAP Spheres are not an inhalation hazard.

Ingestion
Rinse mouth with water. If gastric discomfort is felt, then seek medical attention.

SECTION V FIRE FIGHTING MEASURES

Suitable Extinguishing Media
Water Spray or Dry Powder or Carbon Dioxide (CO2) or Foam

Specific Hazards
At temperatures above 200° C, thermal decomposition giving toxic products can occur.

Special Protective Equipment
For Firefighters
Wear protective clothing, safety goggles and self-contained breathing apparatus.

SECTION VI ACCIDENTAL RELEASE MEASURES

Respiratory Protection (Specify Type)
Where dusty conditions are created, use a suitable, nuisance-type mask.

Ventilation
- Local Exhaust
Ensure removal of airborne particles.

Protective Gloves
- Recommended.
Eye Protection
- Safety goggles

Work/Hygienic Practices
- Wash thoroughly after handling.

Dispose of spilled material in accordance with local, State and Federal regulations for non-hazardous chemical waste.
SECTION VII  
HANDLING & STORAGE

Handling Precautions:  
Avoid dust formation.  
Avoid spillage of floor.  Product becomes slippery when wet.

Storage Conditions  
Store in original container, and protected from moisture.  
Avoid exposure to open flames or temperatures above 200° C.

SECTION VIII  
EXPOSURE CONTROLS / PERSONAL PROTECTION

Protective Provisions  
Ensure sufficient air exchange and/or exhaust in work areas.

Exposure Limits  
Recommended by EDANA: VME = 0.05 mg/m³ (respirable dust < 10 µm)  
Note: SAP Spheres contain < 0.05% of particles < 10 µm in size.

Personal Protection:  
Respiratory  
Effective Dust Mask

Hand  
Gloves

Eyes  
Safety glasses

Skin & Body  
Non-Skid Boots

Hygiene  
Avoid inhalation of dust.

SECTION IX  
PHYSICAL & CHEMICAL PROPERTIES

Appearance  
Opaque, clear to yellowish amorphous spheres (in dry state)  
Clear to opaque spheres with a gelatinous texture (in hydrated state)

Bulk Density  
4 mm Spheres  0.80 to 0.90 g/cc  
2.5 mm Spheres  0.80 to 0.90 g/cc  
1.5 mm Spheres  0.80 to 0.90 g/cc

Decomposition Point  
Approx. 400° C

Solubility in H₂O  
Insoluble. Absorbs water and swells.

Auto-ignition Temperature  
Above 400° C

SECTION X  
STABILITY & REACTIVITY

Conditions To Avoid  
Store protected from moisture  
Keep away from high heat and open flames.

Hazardous Decomposition Products  
Above 200° C thermal decomposition can cause toxic product and carbon monoxide to form.

Further Information  
Polymer swells in the presence of water.

SECTION XI  
TOXICOLOGICAL INFORMATION

Corrosiveness  
None

Acute Toxicity  
Oral rat LD50: 2,000 mg/kg

Skin Irritation  
Not an irritant

Eye Irritation  
Not an irritant

Vaginal Mucosal Irritation  
Not tested

Ames Mutagenicity Test  
Non-mutagenic

Skin contact sensitization  
Non-sensitizing

Symptoms of Exposure  
Dust may cause eye, nasal or bronchial irritation

Cytotoxicity  
Non-cytotoxicity

SECTION XII  
ECOLOGICAL INFORMATION

Persistence/Degradability  
In water  Not readily biodegradable.

Ecotoxicity  
None

Aquatic Toxicity  
None

Acute Toxicity  
None
## SECTION XIII
### DISPOSAL CONSIDERATION

Dispose of product in accordance with local, State and Federal regulations for non-hazardous chemical waste.

## SECTION XIV
### TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR / RID</td>
<td>Not regulated</td>
</tr>
<tr>
<td>IMDG</td>
<td>Not regulated</td>
</tr>
<tr>
<td>IATA</td>
<td>Not regulated</td>
</tr>
<tr>
<td>USDOT</td>
<td>Freight Class 55. Non-hazardous goods.</td>
</tr>
</tbody>
</table>

## SECTION XV
### REGULATORY INFORMATION

<table>
<thead>
<tr>
<th>Classification / Labeling</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC Classification / Labeling</td>
<td>Not classified as dangerous. D.88/379/EEC amended by D.93/18/EEC (3rd ATP)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inventories</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA (USA)</td>
<td>CONFORMS</td>
</tr>
<tr>
<td>EINECS (EU)</td>
<td>CONFORMS</td>
</tr>
<tr>
<td>ENCS (JAPAN)</td>
<td>CONFORMS</td>
</tr>
<tr>
<td>CEPA (CANADA)</td>
<td>CONFORMS</td>
</tr>
<tr>
<td>WHMIS (CANADA)</td>
<td>CONFORMS</td>
</tr>
</tbody>
</table>

## SECTION XVI
### OTHER INFORMATION

<table>
<thead>
<tr>
<th>Recommended Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superabsorbent polymers</td>
</tr>
<tr>
<td>Aqueous fluid absorbent</td>
</tr>
</tbody>
</table>

Regulatory information regarding the use of this substance in a given country is the responsibility of the user. The information in this document relates to the specific material listed. It may not be valid for the material if used in combination with other materials or in any process. It is the user’s responsibility to satisfy himself as to the suitability and completeness of this information for his own particular use.