

M² Polymer Technologies, Inc.
P.O. Box 365
West Dundee, IL 60118
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MATERIAL 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)

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SECTION I SUPPLIER'S INFORMATION

M² Polymer Technologies, Inc.
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West Dundee, IL 60118

Telephone Number for Information: 847/836-1393
Last Update : June 1, 2007

SECTION II COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Components (Specific Chemical Identity: Common Name(s))	OSHA PEL	ACGIH TLV	% (optional)
1. Sodium polyacrylate-acrylamide co-polymer, Crosslinked CAS Number: 25085-02-3	NE	NE	

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 (CO ₂) 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/m ³ (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 H ₂ O	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

ADR / RID	Not regulated
IMDG	Not regulated
IATA	Not regulated
USDOT	Freight Class 55. Non-hazardous goods.

SECTION XV REGULATORY INFORMATION

EC Classification / Labeling	Not classified as dangerous. D.88/379/EEC amended by D.93/18/EEC (3 rd ATP)	
Inventories	TSCA (USA)	CONFORMS
	EINECS (EU)	CONFORMS
	ENCS (JAPAN)	CONFORMS
	CEPA (CANADA)	CONFORMS
	WHMIS (CANADA)	CONFORMS

SECTION XVI OTHER INFORMATION

Recommended Use	Superabsorbent polymers Aqueous fluid absorbent
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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.