MATERIAL SAFETY DATA SHEET — Zinc Sulfate

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: Zinc Sulfate			[WHMIS Classification]
Product Use			
Manufacturer's Name		Supplier's Name: Ayers International Corp.	
Street Address		Street Address: P.O. Box 4312	
MCity	State	City: Greenwich	State: CT
Postal Code	Emergency Telephone	Postal Code: 06831	Emergency Telephone: (800) 424 - 9300
Date MSDS Prepared: 07/20/2010	MSDS Prepared By: J. Miller	Phone Number: (203) 329 - 8919	

SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients *(specific)*	%	CAS Number	LD_{50} of Ingredient *(specify species and route*	LC_{50} of Ingredient *(specify species)*
Zinc Sulfate		7446-19-7		
Hazardous Ingredients *(specific)*				

SECTION 3 — HAZARDS IDENTIFICATION

oute of Entry ❒ Skin Contact ❒ Skin Absorption ❒ Eye Contact ☑ Inhalation ☑ Ingestion

This material or the components of this material are included in the Toxic Chemical Inventory as required in Section 8 (b) of the Toxic Substance Control Act (Public Law 94-469) and is codified in 4(CR 720.

Superfund Amendments & Reauthorization Act – Title III Applicability: Section 312 40 CFR 370.50: Health Hazard: Acute, Chronic

Potential Health Effects

Acute Exposure: May cause skin irritation. May cause eye irritation, possible corneal burn. May cause gastrointestinal disturbance. May cause irritation to nose and throat.

Chronic Exposure: May cause skin dermatitis. May cause eye conjunctivitis. No known ingestion reaction anticipated. May cause inhalation reflex bronchoconstriction.

SECTION 4 — FIRST AID MEASURES

Skin Contact: Immediately wash skin with soap and plenty of water. Remove contaminated clothing and shoes. Call a physician. Wash contaminated clothing before reuse.

Eye Contact: Immediately flush eyes with plenty of water for 15 minutes. Hold eye lids apart during irrigation. Call a physician.

Inhalation: Immediately remove person to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped administer artificial respiration. Keep person warm and calm. Call a physician.

Ingestion: If person is conscious induce vomiting. Call Poison Control Center or a physician. Do not give anything by mouth to an unconscious person.

SECTION 5 — FIRE FIGHTING MEASURES

Flammable ❒ Yes ☑ No	If yes, under which conditions?	
Means of Extinction: Dry chemical, carbon dioxide or foam. Water may be ineffective, but water spray or fog may be used as a cooling agent.		
Flashpoint (° C) and Method	Upper Flammable Limit (% by volume)	Lower Flammable Limit (% by volume)
Autoignition Temperature (°C)	Explosion Data — Sensitivity to Impact	Explosion Data — Sensitivity to Static Discharge
Fire and Explosion Hazards: May release toxic oxides of zinc and sulfur in a fire.		
[NFPA]		

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Leak and Spill Procedures

Spills or Leaks: Comply with federal, state and local regulations on reporting spills. Confine spill or leak to as small an area as possible. Vacuum or shovel spilled material into clean, dry containers and dispose of according to federal, state and local regulations. Zinc sulfate solutions should be flushed with plenty of water to an approved chemical sewer.

SECTION 7 — HANDLING AND STORAGE

Handling Procedures and Equipment

See Section 8 for personal protective equipment.

General Guidelines: Known concentrations <PEL with oxygen levels >19.5%. No respirator is required. Known concentrations >PEL <IDLH with oxygen levels >19.5%. Air purifying full facepiece respirator with high-efficient particulate filters.

Unknown concentration and/or .IDLH and/or oxygen levels <19.5%. Self contained breathing apparatus with full facepiece operated in pressure-demand or other positive pressure mode. Supplied-air respirator with full facepiece operated in pressure demand or other positive pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive pressure mode.

SECTION 8 — EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Limits ❒ ACGIH TLV ❒ OSHA PEL ❒ Other *(specify)*

Specific Engineering Controls *(such as ventilation, enclosed process)*

Ventilation: Provide local exhaust or process enclosing ventilation to maintain exposures below OSHA guidelines 29 CFR 1910.1000 subpart 7.

Personal Protective Equipment ☑ Gloves ☑ Respirator ☑ Eye ❒ Footwear ☑ Clothing ❒ Other

Respirators: if exposure cannot be maintained at or below established OSHA guidelines, respiratory protection must be provided in accordance with 29 CFR 1910.134 requirements.
Skin Protection: Wear appropriate protective clothing and chemical resistance gloves as needed to prevent skin contact. Consult manufacturer to determine appropriate type of gloves or clothing for your particular application. Clean contaminated clothing and protective equipment before reuse. Wash thoroughly after handling material.
Eye Protection: Wear splash proof or dust proof safety goggles wherever there is a potential for eye contact.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Odor and Appearance	Odor Threshold (ppm)
White powder or granules	White powder or ganules	
Specific Gravity	**Vapor Density (air = 1)**	**Vapor Pressure (mmHg)**
3.28	0	
Evaporation Rate	**Boiling Point (° C)**	**Crystallization Point (° F)**
N/A	N/A	70 degrees
pH	**Coefficient of Water/Oil Distribution**	**[Solubility in Water]**
		30% at 70 degrees F

SECTION 10 — STABILITY AND REACTIVITY

Chemical Stability	If no, under which conditions?
☑ Yes ❒ No	
Incompatibility with Other Substances ❒ Yes ❒ No	If yes, which ones?

Thermal Decomposition: May release toxic and hazardous oxides of zinc and sulfur.

Reactivity, and under what conditions?

Hazardous Decomposition Products

Hazardous polymerization will not occur.

SECTION 11 — TOXICOLOGICAL INFORMATION

Effects of Acute Exposure

No data

Effects of chronic exposure

No data

Irritancy of Product

Skin sensitization	Respiratory sensitization
Carcinogenicity-IARC	Carcinogenicity - ACGIH
Reproductive toxicity	Teratogenicity
Embrotoxicity	Mutagenicity

Name of synergistic products/effects

Please continue on reverse side

SECTION 12 — ECOLOGICAL INFORMATION

No data

SECTION 13 — DISPOSAL CONSIDERATIONS

Waste Disposal: Comply with federal, state and local regulations. Zinc sulfate solutions can be carefully reacted with sodium carbonate to form an insoluble zinc carbonate solid that can be scooped up and sent to a disposal contractor.

SECTION 14 — TRANSPORT INFORMATION

Special Shipping Information

Containers Weighing Less than 1000 Pounds: Exempted from DOT regulations. Each package contains less than RQ

Containers Weighing 1000 Pounds or More: Environmentally Hazardous Substance
Solid, NOS, (Zinc Sulfate) UN3077, Class 9
Guide Number 31

SECTION 15 — REGULATORY INFORMATION

Notice: The information herein is presented in good faith and believed to be accurate. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ from one location to another. It is the buyer's responsibility to ensure that its activities comply with federal, state and local laws.

US Regulations: SARA 313 Information: This product contains the following substance subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372: Zinc 36%

SARA Hazard Category: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reuathorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following category: **An immediate health hazard**

SECTION 16 — OTHER INFORMATION