MATERIAL SAFETY DATA SHEET



In the event or a medical or chemical emergency contact ChemTel, Inc. North American 1-800-255-3924 or worldwide Intl. + 01-813-248-0585

Voluntary Purchasing Groups, Inc. 230 FM 87 Bonham, Texas 75418

Effective Date: May 23, 2012

1. PRODUCT AND COMPANY IDENTIFICATION:

Hi-Yield® Aluminum Sulfate

PRODUCT: Hi-Yield® Aluminum Sulfate

COMPANY IDENTIFICATION:

Voluntary Purchasing Groups, Inc. 230 FM 87 Bonham, TX. 75418

2. COMPOSITION/INFORMATION ON INGREDIENTS:

COMPONENT	CAS NO.	% (TYPICAL)	TLV (UNITS)	PEL (UNITS)
Aluminum Sulfate	10043-01-3	100	2 mg/m ³	2 mg/m ³

PEL: Permissible Exposure Limit established by the Occupational Safety and Health Administration.

TLV: Threshold Limit Value recommended by the American conference of Governmental Industrial Hygienists.

3. PHYSICAL DATA:	
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Boiling Point:	Loses water of hydration at 190°F
Specific Gravity:	1.04
Vapor Pressure:	Does Not Apply
Percent Volatile by Volume:	Not Established
Vapor Density:	Not Established
Evaporation Rate:	Not Established
Solubility in Water:	Appreciable
Reactivity in Water:	Will evolve sulfuric acid
Appearance and Odor:	White to tan color ground crystalline solid or powder at 68°F

4. FIRE AND EXPLOSION DATA:

Flash Point:	Does Not Apply		
Flammable Limits:	Lower: Not Determined Upper: Not Determined		
Extinguishing Media:	Carbon dioxide, dry chemicals or water		
Auto Ignition Temperature:	Not Determined		
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Unusual Fire and Explosion Hazards: Under fire conditions substance will decompose to give off aluminum oxide and corrosive sulfur trioxide. Sulfur trioxide is an oxidizing agent, which supports combustion and will react with water to form sulfuric acid.

Special Fire Fighting Procedures: Products of combustion are irritating to the respiratory tract and may cause breathing difficulty and pulmonary edema. Symptoms may be delayed several hours or longer depending upon the extent of exposure. Prevent human exposure to fire, smoke, fumes or products of combustion. Evacuate nonessential personnel from fire area. Utilize self-contained breathing apparatus with full face piece operated in pressure demand or other positive pressure mode and impervious protective clothing. Use Standard fire fighting techniques to extinguish fires involving this material.

5. HEALTH INFORMATION:

Primary Routes of Exposure and Target Organs: Skin and eye contact, inhalation, ingestion. **Signs and Symptoms of Exposure:**

1. Acute Overexposure: Inhalation of dust particles may cause respiratory irritation with symptoms of sore throat and cough. Irritation may result by contact of the dry material with the skin in the presence of moisture or by direct

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contact with the eyes. Eye and skin contact may result in burns. Ingestion of large doses has produced death in laboratory animals.

2. Chronic Overexposure: Prolonged or repeated inhalation of dust may result in emphysema, non-nodular pulmonary fibrosis and fatalities. Prolonged skin contact may result in an anesthetic conditions/ of the fingers (acroanrsthesia) and sensitization. Prolonged eye contact may result in conjunctivitis.

Medical Conditions Generally Aggravated by Exposure: Disorders of respiratory system, skin or eyes.

Chemical/Component Listed as a Carcinogen or Potential Carcinogen: None.

NTP: No IARC: No OSHA: No

Hi-Yield[®] Aluminum Sulfate

Other Exposure Limits: None determined.

Emergency and First Aid Procedures:

Inhalation: Remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician.

Skin or Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes. Do not attempt to neutralize with chemical agent. Call a physician. Flush skin with water. Wash clothing before reuse.

Ingestion: Induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. Call a physician.

6. REACTIVITY DATA:

Stability: Stable Conditions to Avoid: Excessive temperatures Incompatibility: Strong alkalis, moisture Hazardous Decomposition Products: Aluminum hydroxide, sulfuric acid, aluminum oxide, sulfur trioxide Hazardous Polymerization: Will not occur

7. SPILL OR LEAK PROCEDURES:

Steps to be Taken in Case Material is Leaked or Spilled: Utilize personnel protective equipment. Sweep up or vacuum spilled material and place in a labeled container for disposal or reuse. Cover contaminated area with slurry of common, powdered household laundry detergent and water. Using a stiff brush, work the slurry into cracks and crevices. Allow to stand for 2-3 minutes then flush with water. Repeat if necessary. Comply with all applicable governmental regulations concerning spill reporting, handling, and disposal of wastes.

Waste Disposal Method: Dispose of in accordance with Federal, State, and local regulations.

8. PERSONAL PROTECTION INFORMATION:

Respiratory Protection: NIOSH/MSHA approved respiratory devices to provide high-efficiency protection from dust. **Ventilation:** Local or general exhaust to maintain employee exposure below TLV/PEL.

Protective Gloves: Impervious gloves to prevent skin contact.

Eye Protection: Splash-proof or dust resistant safety goggles to prevent eye contact with this substance. Contact lenses should not be worn.

Other Protective Clothing or Equipment: When necessary utilize impervious clothing and other equipment to prevent skin contact with this substance.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Precautions to be Taken in Handling and Storage: Store in a cool, dry, well ventilated area away from flammable materials and sources of heat or flame. Store away from foodstuffs or animal feed. Exercise due caution to prevent damage to or leakage from the container. Provide eyewash and shower facility in immediate work area for emergency use. **Other Precautions:** Not determined

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10. TRANSPORT INFORMATION:

Not regulated by DOT or IMDG.

11. OTHER INFORMATION:

The information contained within was obtained from authoritative sources and is believed to be accurate for the manner in which the product is intended to be used. Other uses could result in ramifications, which are not included within this document.