



NFPA	HMIS	PPE	Symbol(s)
			Regulated 

Preparation Date June 15, 2009

Revision Date 04/22/2010

Revision Number: 1

Product Name: Dry Alum

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Dry Alum

Other/Generic Names: Aluminum Sulfate

Recommended Use: Water treatment, food additive, various industrial uses.

Manufacturer

General Chemical, LLC
 90 East Halsey Road
 Parsippany, NJ 07054

General Chemical Performance Products Ltd.
 90 East Halsey Road
 Parsippany, NJ 07054

Further information

FOR MORE INFORMATION CALL:
 Customer Service US ONLY: 800-631-8050
 (Monday-Friday, 9:00am - 4:30pm)

Customer Service CANADA ONLY: 866-543-3896
 (Monday-Friday, 9:00am - 4:30pm)

Emergency Telephone Number

IN CASE OF EMERGENCY CALL CHEMTREC: 800-424-9300 US ONLY
 24 Hours/Day, 7 Days/Week) CANADA ONLY CALL CANUTEC: 613-996-6666
 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: White or creamy white granules or powder with no odor. Can irritate the skin and eyes. Not flammable, but may release toxic vapors if decomposed in a fire.

OSHA Regulatory Status This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Potential Health Effects

Skin:	May cause skin irritation, especially under repeated or prolonged contact, or when moisture is present.
Eyes:	May irritate or burn eyes.
Inhalation:	Dust or mist inhalation at levels above the TLV may cause irritation to the respiratory tract.
Ingestion:	May irritate the gastrointestinal tract.
Delayed Effects:	None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %
aluminum sulfate	10043-01-3	57-60 (anhydrous)

4. FIRST AID MEASURES

Eye Contact	Immediately flush eyes with water for at least 15 minutes. Get medical attention if irritation persists.
Skin Contact:	Flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If irritation develops, get medical attention.
Inhalation:	Immediately remove to fresh air.
Ingestion:	If conscious, immediately give large quantity of water or milk. If not already vomiting, induce vomiting by touching finger to back of throat. Get medical attention.
Notes to Physician	Treat symptomatically.

5. FIRE-FIGHTING MEASURES**Flammable Properties**

Flash Point:	Not flammable
Flash Point Method:	Not applicable.
Autoignition Temperature	Not applicable
Upper Flame Limit (volume % in air):	Not applicable
Lower Flame Limit (volume % in air):	Not applicable
FLAME PROPAGATION RATE (solids):	Not applicable
OSHA FLAMMABILITY CLASS:	Not applicable

Suitable Extinguishing Media Water spray, foam, carbon dioxide or dry chemical.

Unsuitable Extinguishing Media No information available

Explosion Limits

Hazardous Combustion Products No information available

Impact sensitivity No information available
Sensitivity to static discharge No information available

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition

Protective Equipment and Precautions for Firefighters

Wear self-contained breathing apparatus (SCBA) and full protective equipment.

NFPA**Health 2****Flammability 0****Instability 1****6. ACCIDENTAL RELEASE MEASURES****IN CASE OF SPILL OR OTHER RELEASE:**

Shovel material and place in clean, dry container and cover. Spray residue with plenty of water. Neutralize residue with alkali such as soda ash, lime or limestone. Adequate ventilation is required for soda ash or limestone due to release of CO₂ gas. Collect liquid and/or residue and dispose of in accordance with applicable regulations.

7. HANDLING AND STORAGE**Handling**

Avoid contact with skin, eyes and clothing. Do not breathe product mists.

Storage

Keep storage container tightly closed. Store in a cool, dry and well-ventilated area. Isolate from incompatible substances.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Component	ACGIH TLV	OSHA PEL	Ontario TWAEV	Mexico OEL (TWA)	NIOSH IDLH
aluminum sulfate 10043-01-3				TWA: 2 mg/m ³	

Engineering Measures

Use local exhaust to keep airborne concentrations below the permissible exposure limits.

Personal Protective Equipment**Eye/face Protection**

Wear chemical safety goggles. Do not wear contact lenses.

Skin Protection

Wear appropriate personal protective clothing to prevent skin contact.

Respiratory Protection

A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

General Hygiene Considerations

To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product. Eyewash and safety showers are recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

No information available

Color

White or creamy white

Chemical Formula

Al₂(SO₄)₃·14H₂O

Odor

Odorless

Odor Threshold

No information available

Physical State

Solid

pH

~3.5 (1% solution)

Flash Point:	Not flammable
Autoignition Temperature	Not applicable
Boiling Point/Range	Not applicable
Melting Point/Range	Not applicable
Flammability Limits in Air	No information available
Explosive Properties	No information available
Oxidizing Properties	No information available
Evaporation Rate	Not applicable
Vapour Pressure	Negligible
Vapour Density	Not applicable
Specific Gravity	1.61
Solubility	No information available
Partition Coefficient (n-octanol/water)	No information available
Viscosity	No information available
Molecular Weight	~594 for Al ₂ (SO ₄) ₃ * 14H ₂ O
Water Solubility	50% at 0°C
VOC Content(%)	Negligible

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions.
Conditions to Avoid	Avoid temperatures above 760°C, as this will yield toxic and corrosive gases
Incompatible Products	Alkalis and water reactive materials such as oleum: causes exothermic reactions.
Hazardous Decomposition Products	At elevated temperatures, sulfur oxides may be formed These are toxic and corrosive and are oxidizers. Sulfur trioxide is also a fire hazard. The loss of these gases leaves a caustic residue.
Possibility of Hazardous Reactions	None under normal processing

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

LD50 Oral: (oral-mouse): 6207 mg/kg
(oral-rat): 1930 mg/kg

Component Information

Irritation	No information available
Corrosivity	No information available
Sensitization	No information available

Chronic Toxicity

Carcinogenicity	There are no known carcinogenic chemicals in this product
Mutagenic Effects	No information available

Reproductive Effects No information available

Developmental Effects No information available

Teratogenicity No information available

Target Organ Effects No information available

Endocrine Disruptor Information

12. ECOLOGICAL INFORMATION

Ecotoxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
aluminum sulfate		LC50= 100 mg/L Carassius auratus 96 h LC50= 37 mg/L Gambusia affinis 96 h		EC50 = 136 mg/L 15 min

Persistence and Degradability No information available

Bioaccumulation No information available

Mobility in Environmental Media No information available

Other adverse effects 14 ppm/36 hr./fundulus/fatal/fresh water;
240 ppm/48 hr./mosquito fish/TLm/water type not specified;
TLm Mosquito fish, 235 ppm, 96 hours;
LC50 Largemouth bass, 250 ppm, 96 hours

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods If permitted by regulations, material may be dissolved in water and neutralized with alkali
Neutralized waste may have to be disposed of by an approved contractor

Contaminated Packaging Empty containers should be taken for local recycling, recovery or waste disposal

US EPA Waste Number No information available

Component	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes	RCRA - F Series Wastes	RCRA - P Series Wastes	RCRA - K Series Wastes
aluminum sulfate - 10043-01-3						

14. TRANSPORT INFORMATION

DOT Regulated

Proper Shipping Name Environmentally hazardous substances, solid, n.o.s. (contains aluminum sulfate) (only if greater than 5000 lbs. in one package)

Hazard Class 9

UN-No UN3077

Packing Group	PGIII
TDG	Regulated
Hazard Class	9
UN-No	UN3077
Packing Group	PGIII

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL	Complies
NDSL	Does not Comply
ENCS	Complies
EINECS	Complies
ELINCS	Does not Comply
CHINA	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40n of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazardous Categorization

Chronic Health Hazard	No
Acute Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

CERCLA

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
aluminum sulfate	X	X	X		

Other International Regulations

Mexico - Grade No information available

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class
D2B Toxic materials



16. OTHER INFORMATION

Prepared By Kaci Rosario, Product Safety Supervisor
Preparation Date June 15, 2009
Revision Date 04/22/2010
Revision Summary Changes made to Section 3 and 16.

Disclaimer

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End of MSDS