

MATERIAL SAFETY DATA SHEET



NFPA	HMIS	PPE	Symbol(s)
		 Regulated	
Current Issue Date: April 11, 2013		Revision Number: 0	
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		
For More Information:	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) US ONLY CALL CHEMTREC: 800 424 9300 (24 Hours/ Day, 7 Days/Week) CANADA ONLY CALL CANUTEC: 613 996 6666 (24 Hours/ Day, 7 Days/Week)		
Emergency Telephone Number:			
2. HAZARDS IDENTIFICATION			
EMERGENCY OVERVIEW: White or creamy white granules or powder with a negligible odor. Can irritate the skin and eyes. May be harmful if swallowed. Not flammable, but may release toxic vapors if decomposed in a fire.			
OSHA Status:	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)		
Potential Health Affects			
Skin:	May cause skin irritation, especially under repeated or prolonged contact, or when moisture is present.		
Eyes:	May irritate or burn the eyes.		
Inhalation:	Product mists or dust may cause irritation to the respiratory tract if inhaled above the TLV levels.		
Ingestion:	May irritate the gastrointestinal tract.		
Delayed Effects:	None known.		
3. COMPOSITION/ INFORMATION ON INGREDIENTS			
Component	CAS No	Weight %	
Aluminum sulfate	10043 01 3	57.6 (anhydrous)	

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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, removing contaminated clothing. If irritation develops, get medical attention.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get prompt medical attention.
Ingestion	Do not induce vomiting. Immediately give large quantities of water. Get medical attention immediately.
Notes to Physician	Treat symptomatically
5. FIRE-FIGHTING MEASURES	
<u>Flammable Properties</u>	
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
<u>Explosion Limits</u>	
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. Use water spray to keep containers cool.
6. ACCIDENTAL RELEASE MEASURES	
IN CASE OF SPILL OR OTHER RELEASE	Shovel material and place in clean, dry container and cover. 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. Avoid breathing vapors or mists. Remove contaminated clothing and wash thoroughly after handling.
Storage	Keep storage container tightly closed. Store in a cool, dry, well-ventilated area or cabinet. Isolate from incompatible substances.

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8. EXPOSURE CONTROLS/ PERSONAL PROTECTION					
Component	ACGIH TLV	OSHA PEL	Ontario TWA EV	Mexico OEL (TWA)	NIOSH IDLH
Aluminum sulfate	2 mg/ m ³	2 mg/ m 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 (29CFR 1910.132) be conducted before using this product. Eyewash and safety showers are recommended.			
9. PHYSICAL AND CHEMICAL PROPERTIES					
Appearance		White or creamy white granules or powder			
Color		White or creamy white			
Chemical Formula		Al ₂ (SO ₄) ₃ •14H ₂ O			
Odor		None			
Odor Threshold		No information available			
Physical State		Solid			
pH		3.5 (aqueous 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 determined			
Vapor Pressure		Not applicable			
Vapor Density		Not applicable			
Specific Gravity		1.61			
Partition Coefficient (n-octano/ water)		No information available			
Viscosity		No information available			
Molecular Weight		594			
Water Solubility		50%.at 0°C			
VOC Content (%)		0			

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10. STABILITY AND REACTIVITY				
Chemical Stability	Normally stable.			
Conditionsto Avoid	Avoid temperatures above 760°C, as this will yeld 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	Will not occur.			
11. TOXICOLOGICAL INFORMATION				
<u>Acute Toxicity</u>				
<u>Component Information</u>				
Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	
Aluminum sulfate	1930 mg/kg (rat) 6207 mg/kg (mouse)			
Irritation	No information available			
Corrosivity	No information available			
Sensitization	No information available			
<u>Chronic Toxicity</u>				
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			
Other Adverse Effects	No information available			
Endocrine Disruptor Information	No information available			
12. ECOLOGICAL INFORMATION				
<u>Ecotoxicity</u>				
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 affects	<u>Aluminum sulfate component:</u> 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	Dispose of waste in accordance with all federal, state, and local regulations.			
Contaminated Packaging	Empty containers should be taken for local recycling, recovery or waste disposal.			

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14. TRANSPORT INFORMATION				
<u>DOT</u>		Regulated		
Proper Shipping Name		Environmentally hazardous substances, solid, n.o.s. (contains aluminum sulfate)		
Hazard Class		9		
UN-No		UN3077		
Packing Group		PGII		
<u>IDG</u>		Regulated		
Hazard Class		9		
UN-No		UN3077		
Packing Group		PGII		
15. REGULATORY INFORMATION				
<u>International Inventories</u>				
TSCA	Yes			
DSL	Yes			
EJNCS	No			
EINECS	Yes			
ENCS	Yes			
CHINA	Yes			
KECL	Yes			
PICCS	Yes			
AICS	Yes			
<u>U.S. Federal Regulations</u>				
<u>SARA 313</u>				
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains the following chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372: None				
<u>SARA 311/ 312 Hazardous Categorization</u>				
Chronic Health Hazard	No			
Acute Health Hazard	Yes			
Fire Hazard	No			
Sudden Release of Pressure Hazard	No			
Reactive Hazard	No			
<u>Clean Water Act</u>				
<u>Component</u>	<u>CWA – Reportable Quantities</u>	<u>CWA – Toxic Pollutants</u>	<u>CWA – Priority Pollutants</u>	<u>CWA – Hazardous Substances</u>
Aluminum sulfate	5000 lbs (anhydrous) 8684 lbs (dry)			X
<u>CERCLA</u>				
<u>Component</u>	<u>CERCLA RQ (lb)</u>	<u>SARA TPQ (lb)</u>		
Aluminum sulfate	5000 lbs (anhydrous) 8684 lbs (dry)			
<u>U.S. State Regulations</u>				
<u>California Proposition 65</u>				
This product does not contain any Proposition 65 chemicals.				

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State Right-to-Know					
<u>Component</u>	<u>Massachusetts</u>	<u>New Jersey</u>	<u>Pennsylvania</u>	<u>Illinois</u>	<u>Rhode Island</u>
Aluminum sulfate	X	X	X		
Other International Regulations					
Mexico	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					
Current Issue Date:	April 11, 2013				
Previous Issue Date:	November 30, 2011				
Revision Summary:	Updated date				
<p>Disclaimer:</p> <p><i>All information, statements, data, service and/or recommendations, including, without limitation, those relating to storage, loading/unloading, piping and transportation (collectively referred to herein as "information") are believed to be accurate and reliable. However, no representation or warranty, express or implied, is made as to its completeness, accuracy, fitness for a particular purpose or any other matter, including, without limitation, that the practice or application of any such information is free of patent infringement or other intellectual property misappropriation. General Chemical, LLC is not engaged in the business of providing technical, operational, engineering or safety information for a fee, and therefore; any such information provided herein has been furnished as an accommodation and without charge. All information provided herein is intended for use by persons having requisite knowledge, skill, and experience in the chemical industry. General Chemical, LLC shall not be responsible or liable for the use, application or implementation of the information, provided herein, and all such information is to be used at the risk, and in the sole judgment and discretion, of such persons, their employees, advisors and agents.</i></p> <p style="text-align: right; margin-top: 20px;">End of MSDS</p>					

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