



MATERIAL SAFETY DATA SHEET

Gypsum Plaster Accelerator Alum Catalyst

MSDS #53-630-001
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SECTION 1 CHEMICAL PRODUCT AND IDENTIFICATION

United States Gypsum Company
550 West Adams Street
Chicago, Illinois 60661-3637
A Subsidiary of USG Corporation

Product Safety: 1 (800) 507-8899
www.usg.com
Version Date: January 1, 2008
Version: 5

PRODUCT(S) Gypsum Plaster Accelerator Alum Catalyst

**CHEMICAL FAMILY /
GENERAL
CATEGORY** Catalyst

SYNONYMS Alum, Aluminum Sulfate

SECTION 2 HAZARD IDENTIFICATION

**EMERGENCY OVERVIEW:
AWARNING!**

This product is not expected to produce any unusual hazards during normal use. Exposure to high dust or mist levels may irritate the skin, eyes, nose, throat, or upper respiratory tract. Aluminum sulfate hydrolyzes with water to form sulfuric acid, which is responsible for the irritating effects. Aluminum sulfate may strongly irritate or burn the eyes and is harmful if swallowed.

POTENTIAL HEALTH EFFECTS (See Section 11 for more information)

ACUTE :

Inhalation	Exposure to dust or mist generated during the handling, spray application or use of the product may irritate eyes, skin, nose, throat, and upper respiratory tract. Persons subjected to large amounts of this dust/mist will be forced to leave area because of nuisance conditions such as coughing, sneezing and nasal irritation. Labored breathing may occur after excessive inhalation. If respiratory symptoms persist, consult physician. Due to aluminum sulfate content, Inhalation of mist/dust can irritate the nose, throat, and the upper respiratory tract. Persons subjected to inhalation of product may experience coughing, sneezing and nasal irritation. Labored breathing may occur after excessive inhalation. If respiratory symptoms persist, consult a physician.
Eyes	Dust/mist can cause mechanical irritation of eyes. If burning, redness, itching, pain or other symptoms persist or develop, consult physician. Direct eye contact with aluminum sulfate may cause irritation and inflammation of the eye and may cause severe eye damage. If eye irritation persist, consult a physician.
Skin	Direct skin contact with aluminum sulfate may cause irritation to skin, including redness, itching, and pain. If skin irritation persist, consult a physician.
Ingestion	Aluminum sulfate causes irritation to the gastrointestinal tract, including nausea, vomiting and diarrhea. Ingestion can cause burns to the gastrointestinal tract, incoordination, muscle spasms, and/or kidney injury. Human fatal doses recorded at 30 grams of aluminum sulfate.

CHRONIC:

Inhalation	Prolonged or repeated exposure may impair respiratory tract.
Eyes	None known.
Skin	Prolonged or repeated exposure may cause conjunctivitis.



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Ingestion	None known.			
TARGET ORGANS: Eyes, skin and respiratory system.				
PRIMARY ROUTES OF ENTRY: Inhalation, eyes and skin contact.				
CARCINOGENICITY CLASSIFICATION OF INGREDIENT(S) All substances listed are associated with the nature of the raw materials used in the manufacture of this product and are not independent components of the product formulation. All substances, if present, are at levels well below regulatory limits. See Section 11: Toxicology Information for detailed information.				
MATERIAL	IARC	NTP	ACGIH	CAL- 65
IARC - International Agency for Research on Cancer: 1- Carcinogenic to humans; 2A – Probably carcinogenic to humans; 2B – Possibly carcinogenic to humans; 3 - Not classifiable as a carcinogen; 4 – Probably not a carcinogen				
NTP – National Toxicology Program (Health and Human Services Dept., Public Health Service, NIH/NIEHS): 1- Known to be carcinogen; 2- Anticipated to be carcinogens				
ACGIH – American Conference of Governmental Industrial Hygienists: A1 – Confirmed human carcinogen; A2 – Suspected human carcinogen; A3 – Animal carcinogen; A4 - Not classifiable as a carcinogen; A5 – Not suspected as a human carcinogen				
CAL-65 – California Proposition 65 “Chemicals known to the State of California to Cause Cancer”				
Prolonged or repeated exposure may cause skin burns.				
Food and Drug Administration [CFR Title 21, v.3, sec 182.1125] – Aluminum Sulfate is Generally Recognized as Safe (GRAS).				
POTENTIAL ENVIRONMENTAL EFFECTS: This product has no known adverse effect on ecology. (See Section 12 for more information)				

SECTION 3 COMPOSITION, INFORMATION ON INGREDIENTS

MATERIAL	WT%	CAS #
Aluminum Sulfate	100	10043-01-3
All ingredients of this product are included in the U.S. Environmental Protection Agency’s Toxic Substances Control Act Chemical Substance Inventory and the Canadian Domestic Substances List (DSL).		

SECTION 4 FIRST AID MEASURES

FIRST AID PROCEDURES	
Inhalation	Remove to fresh air. Leave the area of exposure and remain away until coughing and other symptoms subside. Other measures are usually not necessary, however if conditions warrant, contact physician. If not breathing, give artificial respiration. Seek medical attention.
Eyes	In case of contact, do not rub or scratch your eyes. To prevent mechanical irritation, flush thoroughly with water for 15 minutes. If irritation persists, consult physician.
Skin	Wash with mild soap and water for at least 15 minutes. Remove contaminated clothing. If irritation persists, consult physician.



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Ingestion	Never give anything by mouth to an unconscious person. If swallowed, do not induce vomiting. Give large quantities of water, or if available several glasses of milk. If vomiting occurs spontaneously, keep airway passage clear and give more water. Seek medical attention immediately.
MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED: Pre-existing upper respiratory and lung diseases such as, but not limited to, bronchitis, emphysema and asthma. Pre-existing skin diseases such as, but not limited to, rashes and dermatitis.	
NOTES TO PHYSICIAN: Treatment should be directed at the control of symptoms and the clinical condition.	

SECTION 5 FIRE FIGHTING MEASURES

General Fire Hazards	None known		
Extinguishing Media	Water or use extinguishing media appropriate for surrounding fire.		
Special Fire Fighting Procedures	Wear a NIOSH/MSHA-approved positive pressure, self-contained breathing apparatus and goggles. Avoid exposure to smoke or fumes. Contain any liquid runoff.		
Unusual Fire/ Explosion Hazards	None known		
Hazardous Combustion Products	Forms aluminum oxide, sulfur dioxide and/or sulfur trioxide at temperatures above 650°C (1200°F).		
Flash Point	Not Determined	Auto Ignition	Not Applicable
Method Used	Not Applicable	Flammability Classification	Not Applicable
Upper Flammable Limit (UFL)	Not Determined		
Lower Flammable Limit (LFL)	Not Determined	Rate of Burning	Not Applicable

SECTION 6 ACCIDENTAL RELEASE MEASURES

CONTAINMENT: Wear appropriate personal protection (See Section 8). Dilute small spills with plenty of water. Neutralize any further residue with alkali such as soda ash, lime, or limestone. Adequate ventilation is required if soda ash or limestone is used because of the consequent release of carbon dioxide gas.
CLEAN-UP: Absorb small spills on sand or vermiculite and place in appropriate containers for disposal. Slippery when wet, use care to avoid falling.
DISPOSAL: Follow all local, state, provincial and federal regulations. Never discharge large releases directly into sewers or surface waters.

SECTION 7 HANDLING AND STORAGE

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HANDLING: Avoid dust/mist contact with eyes. Wear the appropriate eye protection against dust and mist (See Section 8). Minimize dust/mist generation and accumulation. Avoid breathing dust/mist. Wear the appropriate respiratory protection against dust/mist in poorly ventilated areas and if TLV is exceeded (see Sections 2 and 8). Use good safety and industrial hygiene practices. Avoid contact with skin and clothing.

STORAGE: Store in a cool, dry, ventilated area away from sources of heat, moisture and incompatibilities (see Section 10). Prevent material from coming in contact with common metals due to its corrosive nature.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

MATERIAL	WT%	TLV (mg/m ³)	PEL (mg/m ³)
Aluminum Sulfate	100	2*	15 (T) / 5 (R)

(T)—Total; (R)—Respirable; (NE)—Not Established; (C)—Ceiling; (STEL)—Short-term exposure limit
(F)—Fume; (Du)—Dust; (M)—Mist
ppm—part per million; f/cc—fiber per cubic centimeter; mppcf—million particles per cubic foot

ENGINEERING CONTROLS: Provide ventilation sufficient to control airborne dust/mist levels. If user operations generate airborne dust/mist, use ventilation to keep dust concentrations below permissible exposure limits. Where general ventilation is inadequate, use process enclosures, local exhaust ventilation, or other engineering controls to control dust/mist levels below permissible exposure limits.

RESPIRATORY PROTECTION: Wear a NIOSH/MSHA-approved respirator equipped with particulate cartridges when dusty/misty in poorly ventilated areas, and if TLV is exceeded. A respiratory program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. If engineering controls are not possible, wear a properly fitted NIOSH/MSHA-approved particulate respirator.

OTHER PERSONAL PROTECTIVE EQUIPMENT:

Eye/Face	Due to aluminum sulfate, a face shield is recommended to prevent contact with the face. Eye wash fountains should be located in immediate work area.
Skin	Wear gloves and protective clothing to prevent repeated or prolonged skin contact.
General	Selection of Personal Protective Equipment will depend on environmental working conditions and operations.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White	Vapor Density (Air = 1)	Not Applicable
Odor	Low to no odor	Specific Gravity (H ₂ O = 1)	~1.61
Odor Threshold	Not Determined	Solubility in water (g/100g)	Soluble
Physical State	Solid/ Powder	Partition Coefficient	Not Determined
pH @ 25 ° C	~ 3.5 @ 5% solution	Auto-ignition Temp	Not Determined



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Melting Point	Not Applicable	Decomposition Temp	Not Determined
Freezing Point	Not Applicable	Viscosity	Not Applicable
Boiling Point	Not Applicable	Particle Size	Not Determined
Flash Point	Not Determined	Bulk Density	Not Determined
Evaporation Rate (BuAc = 1)	Not Applicable	Molecular Weight	342.2 [Al ₂ (SO ₄) ₃]
Upper Flammable Limit (UFL)	Not Determined	VOC Content	Zero
Lower Flammable Limit (LFL)	Not Determined	Percent Volatile	Zero
Vapor Pressure (mm Hg)	Not Applicable		

SECTION 10 CHEMICAL STABILITY AND REACTIVITY

STABILITY	Stable.
CONDITIONS TO AVOID	Contact with incompatibles (see below).
INCOMPATIBILITY	None known.
HAZARDOUS POLYMERIZATION	None known.
HAZARDOUS DECOMPOSITION	None known.

SECTION 11 TOXICOLOGICAL INFORMATION

ACUTE EFFECTS:	None known.
CHRONIC EFFECTS / CARCINOGENICITY:	None known.

SECTION 12 ECOLOGICAL INFORMATION

ENVIRONMENTAL TOXICITY:	This product has no known adverse effect on ecology.
Ecotoxicity value	Not determined.

SECTION 13 DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD:	Dispose of material in accordance with federal, state, and local regulations. Never discharge directly into sewers or surface waters. Consult with environmental regulatory agencies for guidance on acceptable disposal practices.
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SECTION 14 TRANSPORT INFORMATION

U.S. DOT INFORMATION: Not a hazardous material per DOT shipping requirements. Not classified or regulated.

Shipping Name	Same as product name.
Hazard Class	Not classified.
UN/NA #	None. Not classified.
Packing Group	None.
Label (s) Required	Not applicable.
GGVSec/MDG-Code	Not classified.
ICAO/IATA-DGR	Not applicable.
RID/ADR	None.
ADNR	None.

SECTION 15 REGULATORY INFORMATION

UNITED STATES REGULATIONS

All ingredients of this product are included in the U.S. Environmental Protection Agency's Toxic Substances Control Act Chemical Substance Inventory.

MATERIAL	WT%	3 0 2	3 0 4	3 1 3	CERCLA	CAA Sec. 112	RCRA Code
Aluminum Sulfate	100	NL	NL	NL	5,000	NL	NL

Key : NL = Not Listed

SARA Title III Section 302 (EPCRA) Extremely Hazardous Substances: Threshold Planning Quantity (TPQ)

SARA Title III Section 304 (EPCRA) Extremely Hazardous Substances: Reportable Quantity (RQ)

SARA Title III Section 313 (EPCRA) Toxic Chemicals: X= Subject to reporting under section 313

CERCLA Hazardous Substances: Reportable Quantity (RQ)

CAA Section 112 (r) Regulated Chemicals for Accidental Release Prevention: Threshold Quantities(TQ)

RCRA Hazardous Waste: RCRA hazardous waste code

CANADIAN REGULATIONS

This product has been classified in accordance with the hazard criteria of Controlled Product regulations and the MSDS contains all the information required by the Controlled Products Regulations. All ingredients of this product are included in the Canadian Domestic Substances List (DSL).

MATERIAL	WT%	IDL Item #	WHMIS Classification
Aluminum Sulfate	100	53	D2B



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IDL Item#: Canadian Hazardous Products Act – Ingredient Disclosure List Item #

WHMIS Classification: Workplace Hazardous Material Information System

Risk and Safety Phrases defined by European Union Directive 67/548/EEC (Annex III and IV)

R-Phrase(s): R36/37/38 R36/37/38

S-Phrase(s): S2

SECTION 16 OTHER INFORMATION

Label Information

Δ WARNING!

Due to aluminum sulfate content, direct contact with eyes can cause burning or strong irritation and is harmful if swallowed. Wear eye protection. If eye contact occurs, immediately flush thoroughly with water for 30 minutes and seek medical advice. Dust or mist may cause irritation to skin, nose, throat and upper respiratory tract. Avoid irritation by reducing exposure to dust and mist. Avoid breathing dust and/or mist. Use in a well-ventilated area or provide sufficient local ventilation. If dusty or misty, wear a NIOSH/MSHA-approved dust or mist respirator. Wear protective gloves, long-sleeved shirts and pants to prevent direct contact. Harmful if swallowed. Ingestion of large amounts can cause burns to the gastrointestinal tract, nausea, vomiting and diarrhea. Do not ingest. If ingested, call physician immediately. Product safety information: (800) 507-8899 or www.usg.com.

KEEP OUT OF REACH OF CHILDREN.

INFORMATION FOR HANDLING AND IDENTIFICATION OF CHEMICAL HAZARDS

NFPA Ratings:			HIMS Ratings:		HEALTH <input type="checkbox"/> 2	0 = Minimal Hazard
Health:	2		Health:	2	FLAMMABILITY <input type="checkbox"/> 0	1 = Slight Hazard
Fire:	0		Fire:	0	PHYSICAL HAZARD <input type="checkbox"/> 0	2 = Moderate Hazard
Reactivity:	0		Reactivity:	0	PERSONAL PROTECTION <input type="checkbox"/> E	3 = Serious Hazard
						4 = Severe Hazard

E – Safety glasses, gloves and dust respirator

Key/Legend

TLV	Threshold Limit Value
PEL	Permissible Exposure Limit
CAS	Chemical Abstracts Service (Registry Number)
NIOSH	National Institute for Occupational Safety and Health
MSHA	Mine Safety and Health Administration
OSHA	Occupational Health and Safety Administration
ACGIH	American Conference of Governmental Industrial Hygienists
IARC	International Agency for Research on Cancer
DOT	United States Department of Transportation
EPA	United States Environmental Protection Agency
NFPA	National Fire Protection Association



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HMIS	Hazardous Materials Identification System
PPE	Personal Protection Equipment
TSCA	Toxic Substances Control Act
DSL	Canadian Domestic Substances List
NDSL	Canadian Non-Domestic Substances List
SARA	Superfund Amendments and Reauthorization Act of 1986
CAA	Clean Air Act
EPCRA	Emergency Planning & Community Right-to-know Act
RCRA	Resource Conservation and Recovery Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
UN/NA#	United Nations/North America number
CFR	Code of Federal Regulations
WHMIS	Workplace Hazardous Material Information System

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