

MATERIAL SAFETY DATA SHEET

Aluminum Nitrate

SECTION 1 . Product and Company Identification

Product Name and Synonym: Aluminum Nitrate
Product Code: A4145
Material Uses:
Manufacturer: Science Stuff
1104 Newport Ave
Austin, TX 78753
(512) 837-6020
Entry Date : 5/23/2013
Print Date: 5/23/2013
24 Hour Emergency Assistance : Chemtrec 800-424-9300
Canutec 613-996-6666

Health:	2			
Flammability:	0			
Reactivity:	0			
Hazard Rating:				
Least	Slight	Moderate	High	Extreme
0	1	2	3	4
NA=Not Applicable		NE=Not Established		

SECTION 2 HAZARD IDENTIFICATION

Heat, shock, friction, or contact with other materials may cause fire or explosion. Harmful if swallowed. Avoid breathing vapor or dust. Use adequate ventilation. Avoid contact with eyes, skin or clothes. Wash thoroughly after handling. Keep closed.

Physical state: Solid (Crystal)
Odor: Odorless
OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Emergency overview:

WARNING!
OXIDIZER.
CAUSES SEVERE RESPIRATORY TRACT, EYE AND SKIN IRRITATION.
CONTAINS MATERIAL WHICH CAN CAUSE FIRE.

Avoid contact with skin and clothing. Avoid breathing dust. Store in tightly-closed container. Avoid contact with combustible materials. Use only with adequate ventilation. Wash thoroughly after handling.

Routes of entry:
Inhalation. Ingestion.

Potential acute health effects:

Eyes: Irritating to eyes.
Skin: Irritating to the skin.
Inhalation: Irritating to the respiratory system.
Ingestion: Ingestion may cause gastrointestinal irritation and diarrhea.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity/ Reproductive toxicity: No known significant effects or critical hazards.

Medical conditions aggravated by over-exposure:
Repeated skin exposure can produce local skin destruction or dermatitis. Repeated or prolonged exposure to the substance can produce lung damage.
Repeated exposure of the eyes to a low level of dust can produce eye irritation.

SECTION 3 MIXTURE COMPONENTS

Aluminum Nitrate

SARA 313	Component	CAS Number	Percent Comp.	Dimension	Exposure Limits
<input type="checkbox"/>	Aluminum Nitrate	CAS# 7784-27-2	100%	W/W	ACGIH TWA 2 mg (Al)/mf

SECTION 4 FIRST AID MEASURES

Heat, shock, friction, or contact with other materials may cause fire or explosion. Harmful if swallowed. Avoid breathing vapor or dust. Use adequate ventilation. Avoid contact with eyes, skin or clothes. Wash thoroughly after handling. Keep closed.

FIRST AID: SKIN: Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention

EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen

INGESTION: If swallowed, induce vomiting immediately after giving two glasses of water. Never give anything by mouth to an unconscious person.

SECTION 5 FIRE FIGHTING MEASURES

Fire Extinguisher Type: Any means suitable for extinguishing surrounding fire

Fire / Explosion Hazards: Strong oxidizer. Contact with combustible materials may cause a fire.

Fire Fighting Procedure: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Remove all ignition sources and ventilate area of leak or spill. Do not disperse dusts into air.

Personal precautions: Immediately contact emergency personnel. Eliminate all ignition sources. Keep unnecessary personnel away. Use suitable protective equipment. Do not touch or walk through spilled material.

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Methods for cleaning up: If emergency personal are unavailable, carefully scoop up spilled materials and use a non-sparking or explosion-proof means to transfer material to an appropriate container for disposal by incineration. Avoid creating dusty conditions and prevent wind dispersal.

SECTION 7 HANDLING AND STORAGE

Store in a cool dry well ventilated area. Keep away from heat and flame. Do not get in eyes, on skin, or on clothing.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: Dust mask

Ventilation

Local Exhaust

Mechanical

Protective Gloves: NIOSH Approved Gloves

Eye Protection: Safety Glasses

Aluminum Nitrate

Other Protective Equipment: Use safe laboratory handling procedures.

Consult local authorities for acceptable exposure limits.

Engineering measures: Use only with adequate ventilation. If user operations generate dust, fumes, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal Protection

Eyes: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

Recommended:

safety glasses with side-shields

Skin: Personal protective equipment for the body should be selected based on the task being performed and risks involved and should be approved by a specialist before handling this product.

Body recommended:

lab coat

Respiratory: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Recommended: nitrile rubber

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Melting Point:	73° C	Percent Volatile by Volume:	0%
Boiling Point:	135° C (decomposes)	Evaporation Rate	N/A
Vapor Pressure:	N/A	Evaporation Standard	
Vapor Density:	N/A	Auto Ignition Temp	N/A
Solubility in Water:	Soluble	Lower Flamm. Limit in Air	N/A
Appearance /Odors:	White crystals / no odor	Upper Flamm. Limit in Air	N/A
Flash Point:	N/A		
Specific Gravity:	N/A		

SECTION 10 STABILITY AND REACTIVITY INFORMATION

Stability: Stable

Aluminum Nitrate

Conditions to Avoid: Heat

Materials to Avoid:

Hazardous Decomposition Products: Nitrogen oxides

Hazardous polymerization: Will Not Occur

Conditions to Avoid: None known

SECTION 11 Toxicological Information

Toxicity data- United States- Product/ ingredient name:

Aluminum Nitrate

LD50	3671 mg/kg	Oral	Rat
LD50	3980 mg/kg	Oral	Mouse

Other toxic effects on humans: Very hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation (lung irritant) Hazardous in case of ingestion

Specific effects

Carcinogenic effects: No known significant effects or critical hazards.

Mutagenic effects: No known significant effects or critical hazards.

Teratogenicity/Reproductive toxicity: No known significant effects or critical hazards.

Sensitization

Ingestion: No known significant effects or critical hazards.

Inhalation: irritating to respiratory system.

Eyes: irritating to eyes.

Skin: irritating to the skin

SECTION 12 Ecological Information

Environmental precautions: No known significant effects or critical hazards.

Products of degradation: These products are nitrogen oxides (NO, NO₂ etc.) Some metallic oxides.

Toxicity of the products of biodegradation: The products of degradation are less toxic than the product itself.

SECTION 13 Disposal Considerations

Waste disposal: the generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-product should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

SECTION 14 Transport Information

DOT Classification: Aluminum Nitrate, 5.1, UN1438, PG III,
Marine Pollutant

DOT Regulations may change from time to time. Please consult the most recent D.O.T. regulations.

SECTION 15 Regulatory Information

United States

HCS Classification:

Irritating material

U.S. Federal regulations:

United States inventory (TSCA 8b): listed

SARA 302/304/311/312 extremely hazardous substances: No products were found

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SARA 302/304 emergency planning and notifications: No products were found
SARA 302/304/311/312 hazardous chemicals: Aluminum Nitrate
SARA 311/312 MSDS distribution- Chemical inventory- hazard identification: Aluminum Nitrate
: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard
Clean Water Act (CWA) 307: No products were found
Clean Water Act (CWA) 311: No products were found
Clean Air Act (CAA) 112 accidental release prevention: No products were found
Clean Air Act (CAA) 112 regulated flammable substance: No products were found.
Clean Air Act (CAA) 112 regulated toxic substance: No products were found

SARA 313
Form R – Reporting Requirements: Aluminum Nitrate
CAS number : 1184-27-2 Concentration : 100
Supplier notification : Aluminum Nitrate
CAS number : 1184-27-2 Concentration : 100

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

Canada
WHMIS (Canada) :
Class C: Oxidizing material
Class D-2B: Material causing other toxic effects (Toxic).
CEPA DSL/ CEPA NDSL : CEPA DSL: No products found

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

SECTION 16

Additional Information

Conditions aggravated/Target organs: None known. TOXIC. Acute:
Irritation to skin, lungs, eyes, mucous membranes, GI tract. Itching.
Chronic: Nitrite poisoning if nitrate is converted in stomach.

Flammability

Health

Reactivity

Revisions

NFPA

0.1

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