

# MATERIAL SAFETY DATA SHEET

Aluminum Sulfate

## SECTION 1 . Product and Company Identification

Product Name and Synonym: Aluminum Sulfate  
Product Code: A4240  
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:	1			
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

May be harmful if swallowed. May cause irritation. Avoid breathing vapors, or dusts. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

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

Emergency overview:  
WARNING!  
HARMFUL IF SWALLOWED  
CAUSES RESPIRATORY TRACT, EYE AND SKIN  
IRRITATION.

Do not ingest.  
Avoid contact with eyes, skin or clothing.  
Avoid breathing dust.  
Keep container closed.  
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 skin  
Inhalation: Irritating to respiratory system.  
Ingestion: Toxic if swallowed.  
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.

## SECTION 3 MIXTURE COMPONENTS

SARA 313	Component	CAS Number	Percent Comp.	Dimension	Exposure Limits
<input type="checkbox"/>	Aluminum Sulfate	CAS# 7784-31-8	100%	W/W	None established

# Aluminum Sulfate

## SECTION 4 FIRST AID MEASURES

May be harmful if swallowed. May cause irritation. Avoid breathing vapors, or dusts. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

FIRST AID: SKIN: Wash exposed area with soap and water. If irritation persists, 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: None Known.

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 sources of ignition and ventilate area of leak or spill. Personnel may require protection from dust. Clean up in a manner that does not disperse dust into the air.

Personal precautions: Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment.

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

Methods for cleaning up: If emergency personnel are unavailable, vacuum or carefully scoop up material and place in 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 place away from incompatible materials. Wash thoroughly after handling.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: Dust mask

Ventilation

Local Exhaust

Mechanical

Protective Gloves: NIOSH Approved Gloves

Eye Protection: Safety Glasses

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

Aluminum Sulfate

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 and gloves  
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.  
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:	Liquifies on gradual heating	Percent Volatile by Volume:	N/A
Boiling Point:	~250° C (loses water)	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 granular or powder / no odor	Upper Flamm. Limit in Air	N/A
Flash Point:	N/A		
Specific Gravity:	1.61		

**SECTION 10 STABILITY AND REACTIVITY INFORMATION**

Stability:	Stable
Conditions to Avoid:	None known
Materials to Avoid:	
Hazardous Decomposition Products:	Sulfur oxides, hydrolyzes to dilute sulfuric acid.
Hazardous polymerization:	Will Not Occur
Conditions to Avoid:	None known

# Aluminum Sulfate

## SECTION 11 Toxicological Information

Toxicity data- United States- Product/ ingredient name:

Aluminum Sulfate

LD50 370 mg/kg Oral Rat

LD50 980 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).

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

sulfur oxides (SO<sub>2</sub>, SO<sub>3</sub> etc.),

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

Toxicity of the products of biodegradation:

Some metallic oxides.

## 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: Not Regulated

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:

Toxic material

Irritating material

U.S. Federal regulations:

United States inventory (TSCA 8b): listed

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

SARA 302/304 emergency planning and notifications: No products were found.

SARA 302/304/311/312 hazardous chemicals: Aluminum Sulfate

SARA 311/312 MSDS distribution- Chemical inventory- hazard identification: Aluminum Sulfate

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.

State regulations: No products were found

Canada

WHMIS (Canada) :

Class D-2B: Material causing other toxic effects (Toxic).

Aluminum Sulfate

CEPA DSL/ CEPA NDSL : CEPA DSL:

No products were 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**

Flammability

Health

Reactivity

**Revisions**

**NFPA**

0.1

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