



# SAFETY DATA SHEET

MUL = 150 mg/L

Revision date 2015-03-03

Revision number 1

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product identifier

Product name Aluminum Sulfate

### Other means of identification

Product code  
Synonyms None

### Recommended use of the chemical and restrictions on use

Recommended use [RU] No information available  
Uses advised against No information available

### Details of the supplier of the safety data sheet

Distributor Level 7 Chemical  
253 Sturgis Rd  
Conway, AR 72034  
1-855-927-1777

### Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC: (800) 424-9300

## 2. HAZARDS IDENTIFICATION

### Classification

#### OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Specific target organ toxicity (single exposure)	Category 3

### GHS Label elements, including precautionary statements

### EMERGENCY OVERVIEW

<b>Physical state</b> solid	<b>Color</b> White to light tan	<b>Appearance</b> crystalline	<b>Odor</b> odorless
--------------------------------	------------------------------------	----------------------------------	-------------------------

**WARNING****Hazard statements**

Causes skin irritation  
 Causes serious eye irritation  
 May cause respiratory irritation. May cause drowsiness or dizziness

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Avoid breathing dust/fume/gas/mist/vapors/spray  
 Use only outdoors or in a well-ventilated area

**Precautionary Statements - Response**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 If eye irritation persists: Get medical advice/attention  
 IF ON SKIN: Wash with plenty of soap and water  
 If skin irritation occurs: Get medical advice/attention  
 Take off contaminated clothing and wash before reuse  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 Call a POISON CENTER or doctor/physician if you feel unwell

**Precautionary Statements - Storage**

Store in a well-ventilated place. Keep container tightly closed  
 Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other information**

- May be harmful if swallowed
- Harmful to aquatic life with long lasting effects

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	weight-%	TRADE SECRET
Aluminum sulfate	10043-01-3	> 55%	--
Water	7732-18-5	< 45%	--

\*The exact percentage (concentration) of composition has been withheld as a trade secret

### 4. FIRST AID MEASURES

**First Aid Measures**

**Eye contact**

Remove contact lenses, if worn. Immediately flush with plenty of water for at least 15 minutes, holding eyelids apart to ensure flushing of the entire surface. Washing within one minute is essential to achieve maximum effectiveness. Seek medical advice immediately.

**Skin contact**

Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

**Ingestion**

Do NOT induce vomiting. If vomiting should occur spontaneously, keep airway clear. Never give anything by mouth to an unconscious person. Get medical attention.

**Inhalation**

Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

**Most important symptoms and effects, both acute and delayed****Acute effects**

None known.

**Chronic effects**

None known.

**Indication of any immediate medical attention and special treatment needed****Note to physicians**

Aluminum soluble salts may cause gastroenteritis if ingested. Treatment includes the use of demulcents. Note: Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

**Extinguishing media****Suitable extinguishing media**

Water fog, carbon dioxide, foam, dry chemical.

**Extinguishing media which must not be used for safety reasons**

No information available

**Special hazards arising from the substance or mixture****Special Hazard**

Under fire conditions (or at temperatures greater than 650 °C or 1202 °F), product decomposes to give off sulfur trioxide, an oxidizing agent which will support combustion. Sulfur trioxide will react with water to form sulfuric acid.

**Advice for firefighters****Firefighting measures**

Cool exposed containers with water spray after extinguishing fire.

**Special protective equipment for firefighters**

Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

**Explosion data****Sensitivity to Mechanical Impact**

None.

**Sensitivity to Static Discharge**

None.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures****Personal precautions**

Wear suitable protective clothing and gloves.

**Environmental precautions****Environmental precautions**

Do not permit solutions of product into sewers or waterways.

**Methods and material for containment and cleaning up****Methods for containment**

Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up**

Large spills should be handled according to a predetermined plan. For assistance in developing a plan, call 1-800-453-2586. Use with adequate ventilation where dust may be generated. Ensure adequate decontamination of tools and equipment following clean-up. Sweep up or vacuum into labeled waste containers for disposal.

**7. HANDLING AND STORAGE****Precautions for safe handling****Advice on safe handling**

Keep container closed when not in use  
Avoid creating dust  
Do not take internally  
Avoid contact with eyes, skin and clothing

**Conditions for safe storage, including any incompatibilities****Technical measures and storage conditions**

Store in a cool, dry place away from ignition sources and open flame.

**Incompatible products**

Reacts with strong alkali to form aluminum hydroxide. Weakly corrosive to carbon steel. On contact with moisture, an acidic solution forms.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Control parameters****Exposure Guidelines**

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

**Appropriate engineering controls****Engineering controls**

Local exhaust ventilation as necessary to maintain exposures to within applicable limits. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details. If there are no applicable or established exposure limit requirements or guidelines, general ventilation should be sufficient.

**Individual protection measures, such as personal protective equipment****Eye/face Protection**

Wear chemical splash goggles and face shield (when eye and face contact is possible due to splashing or spraying of material).

**Hand Protection**

Appropriate chemical resistant gloves should be worn.

**Skin and body protection**

Standard work clothing and work shoes.

**Respiratory protection**

When exposed to elevated dust levels, use NIOSH/MSHA approved respirator in accordance with OSHA Respiratory Protection Requirements under 29 CFR 1910.134.

**Other personal protection data**

Eyewash fountains and safety showers must be easily accessible.

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Information on basic physical and chemical properties**

<b>Physical state</b>	solid
<b>Color</b>	White to light tan
<b>Appearance</b>	crystalline
<b>Odor</b>	odorless
<b>Odor threshold</b>	No information available

<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks / Method</u></b>
<b>pH</b>	3.5	aqueous solution (1%)
<b>Melting / freezing point</b>	Loses water of hydration at 88 °C ( 190 °F)	No information available
<b>Boiling point / boiling range</b>	No information available	No information available
<b>Flash point</b>	No information available	No information available
<b>Evaporation rate</b>	No information available	No information available
<b>Flammability (solid, gas)</b>	No information available	No information available
<b>Flammability Limit in Air</b>		
<b>Upper flammability limit</b>	No information available	No information available
<b>Lower flammability limit</b>	No information available	No information available
<b>Vapor pressure</b>	No information available	No information available
<b>Vapor density</b>	No information available	No information available
<b>Specific gravity</b>	No information available	No information available
<b>Solubility (water)</b>	87.3 g/100 g water	No information available
<b>Solubility in other solvents</b>	No information available	No information available
<b>Partition coefficient: n-octanol/water</b>	No information available	No information available

<b>Autoignition temperature</b>	No information available	No information available
<b>Decomposition temperature</b>	No information available	No information available
<b>Kinematic viscosity</b>	No information available	No information available
<b>Dynamic viscosity</b>	No information available	No information available

**Other information**

<b>Density</b>	No information available
<b>Bulk Density</b>	65 lb/ft <sup>3</sup>
<b>Explosive properties</b>	No information available.
<b>Oxidizing properties</b>	No information available
<b>Softening point</b>	No information available
<b>Molecular weight</b>	Not applicable
<b>Volatile organic compounds (VOCs) content</b>	No information available
<b>Percent Volatile, wt. %</b>	No information available

## 10. STABILITY AND REACTIVITY

**Reactivity****Reactivity**

No data available.

**Chemical stability****Chemical stability**

Stable at ambient temperatures and atmospheric pressure.

**Possibility of hazardous reactions****Possibility of hazardous reactions**

None under normal processing.

**Hazardous polymerization**

Not anticipated under normal or recommended handling and storage conditions.

**Conditions to avoid****Conditions to avoid**

Avoid high temperatures greater than 650° C (1200° F) as material may decompose to form aluminum oxide and sulfur trioxide (an oxidizing agent that supports combustion).

**Incompatible materials****Materials to avoid**

Reacts with strong alkali to form aluminum hydroxide. Weakly corrosive to carbon steel. On contact with moisture, an acidic solution forms.

**Hazardous decomposition products****Hazardous decomposition products**

Thermal decomposition products include oxides of aluminum and sulfur.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure****Eye contact**

Concentrated solutions (over 20%) may cause severe eye damage or burns. May cause irritation and inflammation of the eye.

**Skin contact**

May cause skin irritation or burns if the product is wet or in the presence of perspiration.

**Ingestion**

May be harmful if swallowed. May cause abdominal pain, nausea, or vomiting. Concentrated solutions can cause burns of the mouth, bleeding stomach, muscle spasms and kidney injury.

**Inhalation**

Dust extremely irritating to respiratory tract.

**Acute toxicity - Product Information**

<b>Oral LD50</b>	> 2,000 (rat)
<b>Dermal LD50</b>	> 5,000 mg/kg (rabbit)
<b>Inhalation LC50</b>	No information available

**Acute toxicity - Component Information**

Component	weight-%	Oral LD50	Dermal LD50	Inhalation LC50
Aluminum sulfate 10043-01-3	> 55%	= 1930 mg/kg ( Rat )	--	--

**Information on toxicological effects****Symptoms**

No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Skin corrosion/irritation**

Irritating to skin

**Serious eye damage/eye irritation**

Causes serious eye irritation

**Sensitization**

No information available

**Germ cell mutagenicity**

No information available

**Carcinogenicity**

This product does not contain any components in concentrations greater than or equal to 0.1% that are listed as known or suspected carcinogens by NTP, IARC, ACGIH, or OSHA.

**Reproductive toxicity**

No information available

**Specific target organ toxicity - Single exposure**

Irritating to respiratory system.

**Specific target organ toxicity - Repeated exposure**

No information available

**Aspiration hazard**

No information available.

**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document

**ATEmix (oral)** 3386 mg/kg

**Other information**

Conclusions are drawn from sources other than direct testing.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

- Harmful to aquatic life with long lasting effects

**Acute aquatic toxicity - Product Information**

**Fish** No information available

**Crustacea** No information available

**Algae/aquatic plants** No information available

**Acute aquatic toxicity - Component Information**

Component	weight-%	Algae/aquatic plants	Fish	Toxicity to daphnia and other aquatic invertebrates
Aluminum sulfate 10043-01-3	> 55%	--	LC50 (96 h ) = 100 mg/L (Carassius auratus) LC50 (96 h static) = 37 mg/L (Gambusia affinis)	EC50 (15 min ) = 136 mg/L (Daphnia magna)

**Persistence and degradability**

**Persistence and degradability**  
No information available

**Bioaccumulative potential**

**Bioaccumulative potential**  
No information available

**Mobility**

**Mobility**  
No information available

**Results of PBT and vPvB assessment**

**PBT and vPvB assessment**  
No information available

**Other adverse effects**

**Other information**  
No other ecological studies have been carried out on this product.

## 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**



**Disposal of wastes**

Dispose of product in an approved chemical waste landfill or incinerate in accordance with applicable Federal, state and local regulations.

**Contaminated packaging**

Since empty containers retain product residue, follow label warnings even after container is emptied.

## 14. TRANSPORT INFORMATION

<b><u>DOT</u></b>	Regulated in quantities above RQ.
<b>Reportable Quantity (RQ)</b> <b>DOT Shipping Name &gt; RQ</b>	8500 pounds as hydrate UN3077, Environmentally Hazardous Substance, Solid, N.O.S. (Aluminum Sulfate, Hydrate), 9, PG III, RQ, ERG# 171
<b><u>ICAO/IATA</u></b>	Not regulated
<b><u>IMDG</u></b>	Not regulated

## 15. REGULATORY INFORMATION

**International Inventories****TSCA (United States)**

All ingredients are on the inventory or exempt from listing

**Australia (AICS)**

All ingredients are on the inventory or exempt from listing

**Canada (DSL)**

All ingredients are on the inventory or exempt from listing

**Canada (NDSL)**

None of the ingredients are on the inventory.

**China (IECSC)**

All ingredients are on the inventory or exempt from listing

**EINECS (European Inventory of Existing Chemical Substances)**

All ingredients are on the inventory or exempt from listing

**ELINCS (European List of Notified Chemical Substances)**

None of the ingredients are on the inventory.

**ENCS (Japan)**

All ingredients are on the inventory or exempt from listing

**South Korea (KECL)**

All ingredients are on the inventory or exempt from listing

**Philippines (PICCS)**

All ingredients are on the inventory or exempt from listing

**Legend**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**AICS** - Australian Inventory of Chemical Substances

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**IECSC** - China Inventory of Existing Chemical Substances

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**U.S. Federal Regulations****CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Component	CERCLA/SARA Hazardous Substance RQ	CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs	Calculated Product RQ
Aluminum sulfate 10043-01-3	5000 lb final RQ; 2270 kg final RQ	--	8,500 lb as hydrate

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Priority Pollutants	CWA - Toxic Pollutants
Aluminum sulfate 10043-01-3	Present	5000 lb RQ	--	--

**SARA 311/312 Hazard Categories**

Acute health hazard	Yes
Chronic health hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive hazard	No

**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 40 of the Code of Federal Regulations, Part 372.

**U.S. State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals

**U.S. State Right-to-Know Regulations**

Aluminum sulfate 10043-01-3	
Massachusetts Right to Know Law	Present
Minnesota Hazardous Substance List	Present
New Jersey Right to Know List	sn 0068
Pennsylvania Right to Know List	Environmental hazard

**16. OTHER INFORMATION**

<b>NFPA Rating</b>	Health - 1	Flammability - 0	Instability - 1	Special Hazard -
<b>HMIS Rating</b>	Health - 1	Flammability - 0	Physical hazard - 1	Personal protection - X

**Product code** 3208A

**Revision date** 2015-03-03

**Revision number** 1

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet