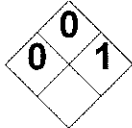



# Material Safety Data Sheet

NFPA	HMIS	Personal Protective Equipment						
	<table border="1"> <tr> <td>Health Hazard</td> <td style="text-align: center;">1</td> </tr> <tr> <td>Fire Hazard</td> <td style="text-align: center;">0</td> </tr> <tr> <td>Reactivity</td> <td style="text-align: center;">1</td> </tr> </table>	Health Hazard	1	Fire Hazard	0	Reactivity	1	 See Section 15.
Health Hazard	1							
Fire Hazard	0							
Reactivity	1							

Section 1. Chemical Product and Company Identification	
Common Name/ Trade Name	<b>Aluminum sulfate</b>
Manufacturer	SPECTRUM CHEMICAL MFG. CORP. 14422 SOUTH SAN PEDRO STREET GARDENA, CALIFORNIA 90248-9985
Commercial Name(s)	Not available
Synonym	Not available.
Chemical Name	Dialuminum trisulfate
Chemical Family	Metal salt. (Salt.)
Chemical Formula	Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>
Supplier	SPECTRUM QUALITY PRODUCTS 14422 S. SAN PEDRO STREET GARDENA, CA 90248-9985
Code	A3665
CAS#	10043-01-3
RTECS	BD1700000
TSCA	On the TSCA list.
CI#	Not applicable.
<b>In case of emergency</b> <b>CHEMTREC (24hr) 800-424-9300</b> <b>Emergency phone: (310) 516-8000</b>	

Section 2. Composition and Information on Ingredients					
Name	CAS#	Exposure Limits			% by Weight
		TWA (mg/m <sup>3</sup> )	STEL (mg/m <sup>3</sup> )	CEIL (mg/m <sup>3</sup> )	
Aluminum sulfate	10043-01-3				100
Toxicological Data on Ingredients	Aluminum sulfate:				

Section 3. Hazards Identification	
Potential Acute Health Effects	Very slightly to slightly dangerous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation.
Potential Chronic	CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. Toxicity of the product to the reproductive system: Not available. There

**Health Effects**

is no known effect from chronic exposure to this product. Repeated or prolonged exposure is not known to aggravate medical condition.

**Section 4. First Aid Measures**

<b>Eye Contact</b>	IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. COLD water may be used.
<b>Skin Contact</b>	If the chemical got onto the clothed portion of the body, remove the contaminated clothes as quickly as possible, protecting your own hands and body. Place the victim under a deluge shower. If the chemical touches the victim's exposed skin, such as the hands: Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. COLD water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention.
<b>Hazardous Skin Contact</b>	No additional information.
<b>Inhalation</b>	Allow the victim to rest in a well ventilated area. Seek immediate medical attention.
<b>Hazardous Inhalation</b>	No additional information.
<b>Ingestion</b>	Remove dentures if any. Watch for an obstruction in the victim's mouth. Remove if possible what is causing the obstruction but do not force fingers or a hard object between the victim's teeth. Have conscious person drink several glasses of water or milk. INDUCE VOMITING by sticking finger in throat. Seek immediate medical attention.
<b>Hazardous Ingestion</b>	No additional information.

**Section 5. Fire and Explosion Data**

<b>Flammability of the Product</b>	Non-flammable.
<b>Auto-Ignition Temperature</b>	Not applicable.
<b>Flash Points</b>	Not applicable.
<b>Flammable Limits</b>	Not applicable.

<b>Products of Combustion</b>	Not applicable.
<b>Fire Hazards in Presence of Various Substances</b>	Not applicable.
<b>Explosion in Presence of Various Substances</b>	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available. No specific information is available in our database regarding the product's risks of explosion in the presence of various materials.
<b>Fire Fighting Media and Instructions</b>	Non-flammable.
<b>Special Remarks on Fire Hazards</b>	When heated to decomposition it emits toxic fumes. Non combustible.
<b>Special Remarks on Explosion Hazards</b>	No additional remark.

#### **Section 6. Accidental Release Measures**

<b>Small Spill</b>	Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
<b>Large Spill</b>	Our database contains no additional information in case of a spill and/or a leak of the product. Use a shovel to put the material into a convenient waste disposal container.

#### **Section 7. Handling and Storage**

<b>Precautions</b>	No specific safety phrase has been found applicable for this product.
<b>Storage</b>	No specific storage is required. Use shelves or cabinets sturdy enough to bear the weight of the chemicals. Be sure that it is not necessary to strain to reach materials, and that shelves are not overloaded.

#### **Section 8. Exposure Controls/Personal Protection**

<b>Engineering Controls</b>	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
<b>Personal Protection</b>	Safety glasses. Lab coat.
<b>Personal</b>	Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient;

**Protection in  
Case of a  
Large Spill**

**Exposure Limits** TWA: 0.14 (ppm) Consult local authorities for acceptable exposure limits.

**Section 9. Physical and Chemical Properties**

<b>Physical state and appearance</b>	Solid. (Crystals solid.)	<b>Odor</b>	Not available.
<b>Molecular Weight</b>	342.14	<b>Taste</b>	Sweet.
<b>pH (1% soln/water)</b>	7	<b>Color</b>	White.
<b>Boiling Point</b>	Not available.		
<b>Melting Point</b>	Decomposes.		
<b>Critical Temperature</b>	Not available.		
<b>Specific Gravity</b>	2.71 (Water = 1)		
<b>Vapor Pressure</b>	Not available.		
<b>Vapor Density</b>	Not available.		
<b>Volatility</b>	Not available.		
<b>Odor Threshold</b>	Not available.		
<b>Evaporation rate</b>	Not available.		
<b>Viscosity</b>	Not available.		
<b>Water/Oil Dist. Coeff.</b>	Not available.		
<b>Ionicity (in Water)</b>	Not available.		
<b>Dispersion Properties</b>	See solubility in water.		
<b>Solubility</b>	Soluble in cold water, hot water. Insoluble in methanol.]		

**Section 10. Stability and Reactivity Data**

<b>Stability</b>	The product is stable.
<b>Instability Temperature</b>	Not available.
<b>Conditions of Instability</b>	No additional remark.
<b>Incompatibility with Various Substances</b>	Very slightly to slightly reactive with oxidizing agents, moisture.
<b>Corrosivity</b>	Non-corrosive in presence of glass.
<b>Special Remarks on Reactivity</b>	No additional remark.
<b>Special Remarks on Corrosivity</b>	No additional remark.

**Section 11. Toxicological Information**

<b>Routes of Entry</b>	Ingestion.
------------------------	------------

**Toxicity to Animals** Acute oral toxicity (LD50): 6207 mg/kg (Mouse.).

**Chronic Effects on Humans** Toxicity of the product to the reproductive system: Not available.

**Other Toxic Effects on Humans** Very slightly to slightly dangerous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation.

**Special Remarks on Toxicity to Animals** No additional remark.

**Special Remarks on Chronic Effects on Humans** No additional remark.

**Special Remarks on other Toxic Effects on Humans** No additional remark.

**Section 12. Ecological Information**

**Ecotoxicity** Not available.

**BOD5 and COD** Not available.

**Products of Biodegradation** Some metallic oxides.

**Toxicity of the Products of Biodegradation** The products of degradation are more toxic.

**Special Remarks on the Products of Biodegradation** No additional remark.

**Section 13. Disposal Considerations**

**Waste Disposal** Recycle to process, if possible. Consult your local or regional authorities.

**Section 14. Transport Information**

**DOT Classification** Not a DOT controlled material (United States).

**Identification** 9078 III

**Special Provisions for Transport** Not applicable.

**DOT (Pictograms)**

**Section 15. Other Regulatory Information and Pictograms**

**Federal and  
State Regulations**

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355 (used for SARA 302, 304, 311 and 312). Components present in this product at a level which could require reporting under the statute are:

NONE

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires submission of annual report release of toxic chemicals that appear in 40 CFR 372 (used for SARA 313). This information must be included in all MSDSs that are copied and distributed for this material. Components present in this product at a level which could require reporting under the statute are:

NONE

WARNING: This product contains a chemical known to the State of California to cause cancer. Chemical ingredient(s) requiring this warning:

NONE

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. Chemical ingredient(s) requiring this warning: NONE

**Other Classifications**

**WHMIS (Canada)**

**DSCL (EEC)**

Other Classifications

WHMIS (Canada)

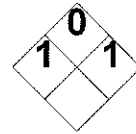
DSCL (EEC)

HMIS (U.S.A.)

Health Hazard	0
Fire Hazard	0
Reactivity	1
Personal Protection	

National Fire Protection Association (U.S.A.)

Health



Flammability

Reactivity

Specific hazard

Personal Protective Equipment



Lab coat.



Safety glasses.

**Section 16. Other Information**

**References** -The Sigma-Aldrich Library of Chemical Safety Data, Edition II.  
-SAX, N.I. Dangerous Properties of Industrial Materials. Toronto, Van Nostrand Reinold, 6e ed. 1984.  
-Hawley, G.G.. The Condensed Chemical Dictionary, 11e ed., New York N.Y., Van Nostrand Reinold, 1987.

**Catalog Number(s)** A1114, A1115, AL300

**Other Special Considerations** No additional remark.

**Validated by** E. Brull on 12/17/96.

**Verified by** E. Brull.  
**Name**

**Emergency Phone:** (310)516-8000

**Notice to Reader**

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Chemical Mfg. Corp. assumes no responsibility for the completeness or accuracy of the information contained herein.