

## Safety Data Sheet


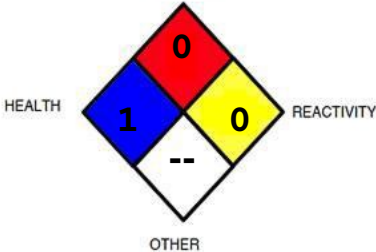
### Section 1: Product & Company Identification

<b>Product Name:</b>	Ammonium Sulfate
<b>Product #:</b>	A-2749
<b>Synonyms:</b>	Diammonium sulfate; Mascagnite; Sulfuric acid diammonium salt; Ammonium sulphate
<b>Supplier:</b>	AG Scientific Holdings, LLC 9950 Scripps Lake Drive, Suite 104 San Diego, CA 92131 Tele# + 858-452-9925
<b>Emergency Tele#:</b>	ChemTel, Tele# in USA 1-800-255-3924, International 1-813-248-0585

### Section 2: Composition / Information on Ingredients

Component	CAS#	EC #	% Composition
Ammonium Sulfate	7783-20-2	231-984-1	≥99

### Section 3: Hazards Identification

<b>Symbols</b>	
<b>HMIS Classification</b>	<p style="text-align: center;">FLAMMABILITY</p>  <p style="text-align: center;">OTHER</p>

<b>NFPA Classification</b>	 <p>The diagram is a diamond-shaped hazard diamond. The top vertex is red and contains the number '0'. The left vertex is blue and contains the number '0'. The right vertex is yellow and contains the number '0'. The bottom vertex is white and contains the text '--'. The diamond is labeled with 'FLAMMABILITY' at the top, 'HEALTH' on the left, 'REACTIVITY' on the right, and 'OTHER' at the bottom.</p>
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## Section 4: First Aid Measures

<b>General Overview:</b>	Consult a doctor and show this safety data sheet.
<b>Inhalation:</b>	Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.
<b>Skin:</b>	Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.
<b>Eyes:</b>	Flush with copious amounts of water for at least 15 minutes. Consult a doctor.
<b>Ingestion:</b>	Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.
	See section 11 for more detailed information on health effects & symptoms.

## SECTION 5: Fire Fighting Measures

<b>Flammability of the product:</b>	No data available
<b>Extinguishing Media:</b>	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
<b>Hazardous thermal (de)composition products:</b>	Sulfur oxides. Ammonia. Nitrogen oxides (NO <sub>x</sub> ).
<b>Special Fire Fighting Procedures:</b>	Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.
<b>Flash Point:</b>	No data available

## Section 6: Accidental Release Measures




<b>Personal Precautions:</b>	Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust, or gas.
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<b>Environmental Precautions:</b>	Do not let product enter drains.
<b>Methods for Clean-up:</b>	Cover spillage with suitable absorbent material. Using non-spark tools, sweep up material and place in an appropriate container. Decontaminate spill site with 10% caustic solution and ventilate area until after disposal is complete. Hold all material for appropriate disposal as described under section 13 of SDS.

## SECTION 7: Handling & Storage

<b>Storage:</b>	Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use. Keep in a dry place. Store at room temperature.
<b>Handling:</b>	Avoid conditions which create dust. Avoid inhalation of dust. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Do not eat, drink, or smoke when using the product. Use only with adequate ventilation. Wash thoroughly after handling. See Section 8 of the SDS for Personal Protective Equipment.

## SECTION 8: Exposure controls / Personal Protection

<b>Respiratory Protection:</b>	 <p>Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.</p>
<b>Skin and Body:</b>	  <p>Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.</p>

	Wear appropriate protective clothing. Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
<b>Eyes:</b>	 <p>Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).</p>
<b>Ventilation/Engineering Measures:</b>	General industrial hygiene practice. Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and eye wash station. Do not let product enter drains.
<b>Hygiene:</b>	Handle in accordance with good industrial hygiene and safety practice.
<b>Other:</b>	Contains no substances with occupational exposure limit values.

## SECTION 9: Physical and Chemical Properties

<b>Appearance &amp; Odor:</b>	White crystalline solid
<b>Formula</b>	H <sub>8</sub> N <sub>2</sub> O <sub>4</sub> S
<b>Molecular Wt.</b>	132.14
<b>Melting Pt.</b>	235°C
<b>Boiling Pt.</b>	No data available
<b>pH (0.1 M solution)</b>	5.5
<b>Relative Density (20°C):</b>	1.77
<b>Vapor Pressure (25°C):</b>	2.57 kPa
<b>Vapor Pressure (35°C):</b>	4.47 kPa
<b>Evaporation Rate:</b>	No data available
<b>Vapor Density:</b>	No data available
<b>Solubility:</b>	Water
<b>Flash Point:</b>	No data available
<b>Autoignition Temp:</b>	No data available

## SECTION 10: Stability and Reactivity

<b>Stability:</b>	Stable under recommended storage conditions.
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<b>Hazardous decomposition products:</b>	Ammonia, Nitrogen oxides, Sulfur oxides
<b>Materials to Avoid:</b>	Strong oxidizing agents, Potassium, Nitrates.
<b>Conditions to avoid:</b>	Excessive heat. Contact with incompatible materials.

## SECTION 11: Toxicological Information

<b>RTECS#:</b>	N/A
<b>ACUTE Toxicity:</b>	LD50 Oral = 3,000 mg/kg (Rat) LD50 Dermal = 2,000 mg/kg (Rat) LC50 Inhalation = 0.900 mg/L (Guinea Pig, 8h)
<b>CHRONIC Toxicity:</b>	N/A
<b>Chronic Exposure:</b> <b>Carcinogen:</b> <b>Mutagen:</b> <b>Teratogen:</b> <b>Reproductive:</b>	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC. AGGIH: No component of this product present at levels greater than or equal to 0.1% is identified as probable, potential human carcinogen by ACGIH. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as known or anticipated human carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as known or potential human carcinogen by OSHA. EPA: No classification on carcinogenic data is available from EPA

## SECTION 12: Ecological Information

<b>Ecotoxicity:</b>	The product contains following substances which are hazardous for the environment. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment: Ammonium Sulfate  Freshwater Fish: Cyprinus carpio: LC50: >460mg/L/96h Brachydanio rerio: LC50:420 mg/L/96h  Water Flea: EC50: 423 mg/L/24h LC50: 14 mg/L/48h
<b>Mobility:</b>	Ammonium Sulfate: log Pow = -5.1
<b>Persistence and degradability:</b>	No data available
<b>Bioaccumulative potential:</b>	No data available

<b>Other adverse effects:</b>	No data available
<b>Corrosivity Characteristic:</b>	No data available
<b>General Notes:</b>	To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

## SECTION 13: Disposal Considerations

<b>Residue Waste or Unused product:</b>	Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations.
<b>Contaminated Packaging:</b>	Dispose of container and unused contents in accordance with federal, state, and local requirements.

## SECTION 14: Transportation Information

<b>UN ID#:</b>	N/A
<b>ADR / RID (LAND):</b>	Not regulated
<b>DOT regulations:</b>	Not regulated
<b>IMDG/IMO (SEA):</b>	Not regulated
<b>IATA/DGR (AIR):</b>	Not regulated
<b>Special Provisions:</b>	N/A

## SECTION 15: Regulatory Information

<b>Health Phrases:</b>	H371 May Cause damage to organs.
<b>Risk Phrases:</b>	P260 Do not breathe dust/fume/gas/mist/vapors/spray. P264 Wash skin thoroughly after handling P270 Do not eat, drink, or smoke when using this product.
<b>Safety Phrases:</b>	P308 + P311 IF exposed or concerned: call a POISON CENTER or doctor/physician P405 Store locked up. P501 Dispose of contents/ container to an approved waste disposal plant.
<b>EU Regulations:</b>	N/A
<b>US Regulations:</b>	TSCA: Listed California Proposition 65: No products were found Massachusetts State Right to Know: Listed New Jersey State Right to Know: Listed Pennsylvania State Right to Know: Listed
<b>U.S. Federal Regulations:</b>	SARA 302/304 emergency planning and notification: No products were found. SARA 311/312 MSDS distribution-chemical inventory-hazard identification: No products were found.

	<p>SARA 313 toxic chemicals notification and release reporting: Ammonium Sulfate (CAS 7783-20-2), Weight &gt;95%, SARA 313-threshold value 1.0%</p> <p>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 substances: No products were found.          Clean Air Act (CAA) 112 regulated toxic substances: No products were found.          OSHA: Specific target organ toxicity - single exposure (Cat. 2)</p>
<b>WHMIS (Canada):</b>	<p>DSL: Listed</p> <p>This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.</p>

## SECTION 16: Other Information

**LIABILITY STATEMENT:** *The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. AG Scientific shall not be held liable for any damages resulting from handling or from contact with the above product. AG Scientific products are for research purposes only. Not for human use or consumption.*