



MSDS - Ammonium Sulphate

Issued May 2008

Section 1. Product Information

Product Name: Ammonium Sulphate

Synonyms: Ammonium Sulfate, Diammonium Sulfate

Distributed by Pestell Minerals & Ingredients, New Hamburg, ON Canada

24 Hour Emergency Telephone (Canutec): 613-996-6666

Section 2. Composition/Information on Ingredients

Ammonium Sulfate 95% CAS # 7783-20-2

Section 3. Hazards Identification

Emergency Overview: Colorless to dark brown crystals or granules. Odorless. Dust may cause irritation to skin, eyes, nose, throat and lungs. Avoid breathing dust.

Potential Health Hazards

Skin: Irritation may result from prolonged skin contact

Eyes: Contact with dust or mist may cause eye irritation

Inhalation: Dust inhalation may irritate nose, throat and lungs

Ingestion: Not generally considered toxic. If swallowed, irritation may develop in the mouth, esophagus, stomach, etc. The sulfate ion may cause purging.

Delayed Effects: None known

Section 4. First Aid Measures

Skin: Wash promptly with soap and water and flush with water until chemical is removed. Remove any contaminated clothing and wash before reuse. Get medical attention for irritation.

Eyes: Flush promptly with plenty of water for at least 15 minutes. Get medical attention.

Inhalation: Remove to fresh air. If breathing is difficult, give oxygen if a qualified operator is available. Get medical attention for irritation or discomfort.

Ingestion: If conscious drink 2 to 4 glasses of water and induce vomiting by touching back of throat with finger.

Advice to Physician. No specific advice, Treat according to symptoms present,

Section 5. First Aid Measures

Flammable Properties

Flash Point: Not applicable

Flash Point Method: Not applicable

Auto-ignition Temperature: Not applicable

Upper Flame Limit: Not applicable

Lower Plane Limit: Not applicable

Flame Propagation Rate: Not applicable

OSHA Flammability Class: Not flammable

Extinguishing Media: Any standard agent may be used. If involved in a fire, flood with water.

Unusual Fire and Explosion Hazards: Decomposes at elevated temperatures to produce toxic fumes of ammonia and sulfur oxides. If mixed with strong oxidizers such as ammonium nitrate or potassium salts (nitrite, nitrate or chlorate), a vigorous reaction may occur.

Special Fire Fighting Precaution: Since toxic gases may be released violently at high temperatures, firefighters should wear full protective clothing and NIOSH approved, self contained breathing apparatus. Use water to keep fire exposed containers cool.

Section 6. Accidental Release Measures

IN CASE OF SPILL OR OTHER RELEASE: (Always wear recommended personal protective equipment). Shovel up large spills (dry chemicals) for use or disposal. Sweep up small spills and maximize recovery. Flush residue with water if permitted by applicable disposal regulations.

Spills and releases may have to be reported to Federal and/or local authorities. See Section 15 regarding reporting requirements.

Section 7. Handling and Storage

Normal Handling: (Always wear recommended personal protective equipment). Avoid contact with eyes, skin and clothing. Avoid breathing dust. Keep containers closed and avoid rough handling.

Follow good personal hygiene and housekeeping practices.

Storage Recommendations: Store in a cool, dry place away from strong oxidizers, such as chlorates, nitrates and nitrites.

Section 8. Exposure Controls/Personal Protection

Engineering Controls: Provide local exhaust, if dusty conditions prevail.

Personal Protective Equipment

Skin Protection: To minimize skin contact, wear long sleeved shirt, trousers and gloves for routine product handling and use.

Eye Protection: Under dusty or misty conditions, wear chemical safety goggles. Do not wear contact lenses.

Respiratory Protection: Where dusty or misty conditions require it, use a NIOSH approved dust or mist respirator for needed protection.

Additional Recommendations: None generally required.

Exposure Guidelines

| Ingredient Name | ACGIH TLV | OSHA PEL | Other Limit |
|--|---|---|-------------|
| Ammonium Sulfate | Nuisance Dust: mg/m ³ TLV - total | Nuisance Dust: 15 mg/m ³ TLV - Respirable | None |
| Other exposure limits for potential decomposition products: None | | | |

Section 9. Physical and Chemical Properties

Appearance: Color less to dark brown crystals or granules

Physical State: Solid

Molecular Weight: 132.14

Chemical Formula: (NH₄)₂ SO₄

Odor: Odorless

Specific Gravity (water=1.0) 1.77

Solubility in Water: (Weight %) 38% solution @ 20°C

pH: 5.5 (1.3% solution)

Boiling Point: Not applicable

Melting Point: Not applicable

Vapor Pressure: Not applicable

Vapor Density (air=1.0) Not applicable

Evaporation Rate: Not applicable

% Volatiles: Not applicable
Flash Point: Not applicable

Section 10. Stability and Reactivity

Normally Stable (Conditions to Avoid): Stable under normal conditions. Avoid temperatures above 280°C - decomposes.

Incompatibles: Oxidizers; eg., potassium salts -nitrate, nitrite, chlorate, also chlorine or hypochlorite. Avoid contact with zinc-clad, copper and copper bearing materials.

Hazardous Decomposition Products: Ammonia and sulfur trioxide and sulfur dioxide gases

Hazardous Polymerization: Will not occur

Section 11. Toxicological Information

Immediate (Acute) Effects:

LD50 (oral-rat): 3000 mg/kg

Skin irritation - A single dermal dose of 0.5 g elicited transient (reversible) mild dermal irritation in the rabbit

Delayed (Subchronic and Chronic) Effects: Eye irritation - A single ocular dose of 100 mg elicited transient (reversible) moderate ocular irritation in the rabbit

There was no evidence of skin sensitization seen in guinea pigs.

Section 12. Ecological Information

Degradability - Not applicable

Aquatic Toxicity: Daphnia magna:

25 hr. TLm: 423 mg/l

50 hr. TLm: 433 mg/l

100 hr. TLm: 292 mg/l

Seedling Emergence - There was no treatment related signs of phytotoxicity and no adverse effects on seedlings noted.

Section 13. Disposal Considerations

RCRA: Is the unused product a RCRA hazardous waste if discarded? No

Other Disposal Considerations: One use of ammonium sulfate is a fertilizer, therefore, waste ammonium sulfate might be used as a fertilizer. If discarded to waterways, it may promote eutrophication. Disposal must be in accordance with applicable disposal regulations. Users should consult with appropriate regulatory agencies before discharging or disposing of waste material.

The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

Section 14. Transport Information

US DOT Proper Shipping Name: Not regulated

US Dot Hazard Class: Not applicable

For additional information on shipping regulations affecting this material, contact the information number found in Section 1.

Section 15. Regulatory Information

Toxic Substances Control Act (TSCA)

TSCA Inventory Status: Material is on the TSCA Inventory

Other TSCA Issues: None

SARA Title III/CERCLA

RQs & TOQs: "Reportable Quantities" (RQs) and/or Threshold Planning Quantities" (TPQ's) exist for the following ingredients.

Ingredient Name: None

SARA/CERCLA RQ (lb): None

SARA EHS TPQ (lb): None

Spills or releases resulting the loss of any ingredient at or above its RQ requires immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Section 311 Hazard Class: Immediate

SARA 313 Toxic Chemicals:

The following ingredients are SARA 313 "Toxic Chemicals". CAS numbers and weight percents are found in Section 2.

Ingredient Name: None

State Right-To-Know: In addition to the ingredients found in Section 2, the following are listed for state right-to-know purposes:

Ingredient Name: None

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