

## Material Safety Data Sheet (MSDS)

### Section 1 — Chemical Product and Company Identification

#### Ammonium Chloride

Flinn Scientific, Inc., P.O. Box 219, Batavia, IL 60510 (800) 452-1261  
CHEMTREC Emergency Phone Number: (800) 424-9300

### Section 2 — Composition, Information on Ingredients

Ammonium Chloride  
Synonym: ammonium muriate  
CAS#: 12125-02-9

### Section 3 — Hazards Identification

Odorless, white hygroscopic crystal.  
Irritating to body tissues. Avoid breathing dust and body tissue contact. Slightly toxic by ingestion.  
When heated to decomposition, emits toxic fumes of NO<sub>x</sub>, Cl<sub>2</sub>, and NH<sub>3</sub>.

#### FLINN AT-A-GLANCE

Health-1  
Flammability-0  
Reactivity-0  
Exposure-1  
Storage-1  
0 is low hazard, 3 is high hazard

### Section 4 — First Aid Measures

Call a physician, seek medical attention for further treatment, observation and support after first aid.  
Inhalation: Remove to fresh air at once. If breathing has stopped give artificial respiration immediately.  
Eye: Immediately flush with fresh water for 15 minutes.  
External: Wash continuously with fresh water for 15 minutes.  
Internal: Give large quantities of water. Call a physician or poison control at once.

### Section 5 — Fire Fighting Measures

Non flammable solid.  
When heated to decomposition, emits toxic fumes of NO<sub>x</sub>, Cl<sub>2</sub> and NH<sub>3</sub>.  
Fire Fighting Instructions: Use triclass, dry chemical fire extinguisher. Firefighters should wear PPE and SCBA with full facepiece operated in positive pressure mode.

#### NFPA CODE

None  
Established

### Section 6 — Accidental Release Measures

Restrict unprotected personnel from area. Sweep up, place in sealed bag or container and dispose. Ventilate area and wash spill site after material pickup is complete. See Sections 8 and 13 for further information.

### Section 7 — Handling and Storage

Flinn Suggested Chemical Storage Pattern: Inorganic #2. Store with acetates, halides, sulfates, sulfites, thiosulfates and phosphates. Store in a cool dry place. Deliquescent, store in Flinn Chem-Saf bag. Use fume hood when heating.

### Section 8 — Exposure Controls, Personal Protection

Avoid contact with eyes, skin and clothing. Wear chemical splash goggles, chemical-resistant gloves and chemical-resistant apron. Avoid breathing dust. Use ventilation to keep airborne concentrations below exposure limits. Always wear a NIOSH-approved respirator with proper cartridges or a positive pressure, air-supplied respirator when handling this material in emergency situations (spill or fire). Exposure guidelines: TWA 10 mg/m<sup>3</sup>, STEL 20 mg/m<sup>3</sup> (NIOSH, ACGIH)

**Material Safety Data Sheet (MSDS)****Section 9 — Physical and Chemical Properties**

White hygroscopic crystal. Specific Gravity: 1.53  
Solubility: Soluble in water, glycerin and alcohol. Melting Point: 337.8 C  
Formula: NH<sub>4</sub>Cl Boiling Point: 520 C  
Formula Weight: 53.50

**Section 10 — Stability and Reactivity**

Avoid contact with strong acids and bases.  
Shelf life: Fair to poor; hygroscopic.

**Section 11 — Toxicological Information**

Acute effects: Irritant ORL-RAT LD50: 1650 mg/kg  
Chronic effects: N.A. IHL-RAT LC50: N.A.  
Target organs: N.A. SKN-RBT LD50: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

**Section 12 — Ecological Information**

Data not yet available.

**Section 13 — Disposal Considerations**

Please consult with state and local regulations.  
Flinn Suggested Disposal Method #26a is one option.

**Section 14 — Transport Information**

Shipping Name: Not regulated  
Hazard Class: N/A  
UN Number: N/A

N.A. = Not applicable

**Section 15 — Regulatory Information**

TSCA-listed, EINECS-listed (235-186-4).

**Section 16 — Other Information**

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Consult your copy of the *Flinn Scientific Catalog/Reference Manual* for additional information about laboratory chemicals.

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P.O. Box 219 • Batavia, IL 60510 • (800) 452-1261 • Fax (866) 452-1436 • flinn@flinnsci.com • www.flinnsci.com