

# FLINN SCIENTIFIC INC.

"Your Safer Source for Science Supplies"

## Material Safety Data Sheet (MSDS)

MSDS #: 53.00

Revision Date: November 25, 2002

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### Section 1 — Chemical Product and Company Identification

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## Ammonium Chloride

Flinn Scientific, Inc. P.O. Box 219 Batavia, IL 60510 (800) 452-1261

CHEMTREC Emergency Phone Number: (800) 424-9300

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### Section 2 — Composition, Information on Ingredients

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Ammonium Chloride

Synonym: ammonium muriate

CAS#: 12125-02-9

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### Section 3 — Hazards Identification

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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, 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

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### Section 4 — First Aid Measures

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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.

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### Section 5 — Fire Fighting Measures

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Non flammable solid.

When heated to decomposition, emits toxic fumes of NO<sub>x</sub>, Cl 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

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### Section 6 — Accidental Release Measures

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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.

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### Section 7 — Handling and Storage

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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.

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### Section 8 — Exposure Controls, Personal Protection

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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)

### Section 9 — Physical and Chemical Properties

White hygroscopic crystal.  
Solubility: Soluble in water, glycerin and alcohol.  
Formula: NH<sub>4</sub>Cl  
Formula Weight: 53.50

Specific Gravity: 1.53  
Melting Point: 337.8 C  
Boiling Point: 520 C

### 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  
Chronic effects: N.A.  
Target organs: N.A.

ORL-RAT LD50: 1650 mg/kg  
IHL-RAT LC50: 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

Consult your copy of the Flinn Scientific Catalog/Reference Manual for additional information about laboratory chemicals. This Material Safety Data Sheet (MSDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. Flinn Scientific Inc. assumes no legal responsibility for use or reliance upon this data.

**FLINN SCIENTIFIC INC.**

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