

# FLINN SCIENTIFIC, INC.

## Material Safety Data Sheet (MSDS)

MSDS #: 53.00

Revision Date: May 11, 2010

### 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, 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 and 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 at least 15 minutes.

External: Wash continuously with fresh water for at least 15 minutes.

Internal: Give large quantities of water. Call a physician or poison control at once.

### SECTION 5 — FIRE FIGHTING MEASURES

Nonflammable solid.

When heated to decomposition, emits toxic fumes of NO<sub>x</sub>, Cl and NH<sub>3</sub>.

**Fire Fighting Instructions:** Use a 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 the area. Sweep up the spill, place in a 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 a 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)

**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

white, hygroscopic crystal.

Solubility: Soluble in water, glycerin, and alcohol.

Formula:  $\text{NH}_4\text{Cl}$

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  $\text{LD}_{50}$ : 1650 mg/kg

IHL-RAT  $\text{LC}_{50}$ : N.A.

SKN-RBT  $\text{LD}_{50}$ : 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 Science Catalog/Reference Manual*  
for additional information about laboratory chemicals.**