

FLINN SCIENTIFIC, INC.

Material Safety Data Sheet (MSDS)

MSDS #: 58.05

Revision Date: May 11, 2010

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Ammonium Hydroxide Solution

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 hydroxide (1336-21-6)<11%, water (7732-18-5)>89%.

Synonym: 3M or less ammonium hydroxide.

CAS#: None established

SECTION 3 — HAZARDS IDENTIFICATION

Clear liquid with a strong ammonia odor.

Liquid and vapor are very irritating to skin, eyes, and mucous membranes. Vapor extremely irritating to eyes. May cause blindness. Moderately toxic by ingestion or inhalation.

FLINN AT-A-GLANCE

Health-2

Flammability-0

Reactivity-1

Exposure-2

Storage-3

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 no more than 1-2 cups of water for dilution. Do not induce vomiting. Call a physician or poison control at once.

SECTION 5 — FIRE FIGHTING MEASURES

Nonflammable liquid.

When heated to decomposition, emits toxic fumes of NH₃ and NO_x.

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 and ventilate area. Contain the spill with sand or absorbent material and deposit in a sealed bag or container. See Sections 8 and 13 for further information.

SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Inorganic #4. Store in a dedicated base cabinet. If a cabinet is not available, store in a Flinn Saf-Cube. Use and dispense in a hood.

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Avoid contact with eyes, skin, and clothing. Wear chemical splash goggles, chemical-resistant gloves, and chemical-resistant apron. 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 25 ppm, STEL 35 ppm.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Solution of ammonia in water, 3M or less.

Formula: NH_4OH

Formula Weight: 35.05

SECTION 10 — STABILITY AND REACTIVITY

Avoid contact with acids, copper, galvanized iron, and aluminum.

When heated to decomposition, emits toxic fumes of NO_x and NH_3 .

Shelf life: Indefinite, if stored safely.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Toxic, corrosive, lachrymator

Chronic effects: N.A.

Target organs: N.A.

ORL-RAT LD_{50} : 350 mg/kg as ammonium hydroxide

IHL-RAT LC_{50} : N.A.

SKN-RBT 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 #10 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 (215-647-6), RCRA code D002.

SECTION 16 — OTHER INFORMATION

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