FLINN SCIENTIFIC, INC. **Material Safety Data Sheet (MSDS)**

MSDS #: 46.00

Revision Date: December 14, 2011

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Ammonia

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) 8-10% and Water (7732-18-5) 90-92%

Synonym: household ammonia, ammonia solution, aqueous ammonia

CAS#: None established

SECTION 3 — HAZARDS IDENTIFICATION

White cloudy solution. Strong ammonia odor.

Mildly toxic by ingestion and inhalation. Irritating to body tissues. Lachrymator.

Avoid all body tissue contact.

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 or External: Immediately flush with fresh water for at least 15 minutes.

Internal: Do NOT induce vomiting. Rinse mouth. Give large quantities of water for dilution. Call a physician or poison control at once.

SECTION 5 — FIRE FIGHTING MEASURES

Nonflammable, noncombustible solution.

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

NFPA CODE

None established

Fire Fighting Instructions: Use a triclass, dry chemical fire extinguisher. Firefighters should wear PPE and SCBA with full facepiece operated in positive pressure mode.

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 exhaust ventilation to keep airborne concentrations low.

Exposure guidelines: PEL 50 ppm (OSHA).

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SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Household ammonia. Normally an 8-10% aqueous solution of ammonium hydroxide.

Melting point: -77 °C Specific gravity: 0.90

SECTION 10 — STABILITY AND REACTIVITY

Avoid contact with acids, copper, copper alloys, galvanized iron, and aluminum. Shelf life: Indefinite, if stored properly.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Toxic, corrosive, lachrymator. ORL-RAT LD_{50} : N.A. Chronic effects: N.A. IHL-RAT LC_{50} : N.A. Target organs: 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 review all federal, state and local regulations that may apply, before proceeding. Flinn Suggested Disposal Method #26b 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 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.