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

MSDS #: 68.00

Revision Date: April 28, 2011

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Ammonium Sulfide

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 sulfide, light; or ammonium sulfide, dark

CAS#: 12135-76-1

SECTION 3 — HAZARDS IDENTIFICATION

Liquid. Light is a yellow color and dark is an amber color. Sulfur, ammonia-like odor.
Contact with acids or acid fumes may liberate flammable and poisonous hydrogen sulfide gas.
Strong skin and mucous membrane irritant; toxic by skin absorption; vapor harmful, even low concentrations may cause headache and general discomfort.

FLINN AT-A-GLANCE

Health-2
Flammability-2
Reactivity-2
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

Class IC flammable liquid.
Flash point: 32 °C Flammable limits: Lower: 4% Upper: 46%
Liberates flammable and toxic H_2S gas.

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. Remove all ignition sources and ventilate area. Contain the spill with sand or other inert 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 #5. Store with sulfides, phosphides, carbides, and nitrides.
Store in a dedicated flammables cabinet. If a flammables cabinet is not available, store in Flinn Saf-Stor can.
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.

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SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Dark liquid: 22% sulfur, 8% ammonia, amber color
Light liquid: 8% sulfur, 8% ammonia, yellow color
Solubility: Water soluble (100 %), alcohol, and alkalis
Formula: $(NH_4)_2S$+ water

Specific gravity: Light: 1.01 Dark: 1.06
Vapor density: 2.3
Vapor pressure: 450 mm

SECTION 10 — STABILITY AND REACTIVITY

Avoid contact with strong oxidizers, acids, bases, aluminum, zinc, and copper.
Avoid heat.
Shelf life: Good, if stored properly.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Toxic, corrosive, nausea, headache, and vomiting.
Chronic effects: N.A.
Target organs: N.A.

ORL-RAT LD_{50}: 152 mg/kg
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 review all federal, state and local regulations that may apply, before proceeding.
Flinn Suggested Disposal Method #23 is one option.

SECTION 14 — TRANSPORT INFORMATION

Shipping name: Ammonium Sulfide Solution
Hazard class: 8, Corrosive, Poison, Flammable Liquid
UN number: UN2683
N/A = Not applicable

SECTION 15 — REGULATORY INFORMATION

TSCA-listed, EINECS-listed (235-223-4), RCRA code D001, D003.

SECTION 16 — OTHER INFORMATION

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

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