

# FLINN SCIENTIFIC, INC.

## Material Safety Data Sheet (MSDS)

MSDS #: 68.00

Revision Date: May 11, 2010

### 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, both with an odor of ammonia and hydrogen sulfide.

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: 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

Flammable liquid.

Flash Point: 90 °F UEL: 46% LEL: 4%

Liberates flammable and toxic H<sub>2</sub>S 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**

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Dark liquid: 22% sulfur, 8% ammonia, amber color  
Light liquid: 8% sulfur, 8% ammonia, yellow color  
Solubility: Water soluble (100 %), alcohol, and alkalies  
Formula:  $(\text{NH}_4)_2\text{S}^+$  water

Specific Gravity: Light: 1.01 Dark: 1.06  
Vapor Density: 2.3 (Air=1)  
Vapor Pressure: 450 mm @ 20 °C

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**SECTION 10 — STABILITY AND REACTIVITY**

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

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**SECTION 11 — TOXICOLOGICAL INFORMATION**

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

ORL-RAT LD<sub>50</sub>: N.A.  
IHL-RAT LC<sub>50</sub>: N.A.  
SKN-RBT LD<sub>50</sub>: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

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**SECTION 12 — ECOLOGICAL INFORMATION**

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Data not yet available.

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**SECTION 13 — DISPOSAL CONSIDERATIONS**

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Please consult with state and local regulations.  
Flinn Suggested Disposal Method #23 is one option.

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**SECTION 14 — TRANSPORT INFORMATION**

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Shipping Name: Ammonium Sulfide Solution  
Hazard Class: 8, Corrosive, Poison, Flammable Liquid  
UN Number: UN2683  
N/A = Not applicable

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**SECTION 15 — REGULATORY INFORMATION**

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

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**SECTION 16 — OTHER INFORMATION**

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