

FLINN SCIENTIFIC, INC.

Material Safety Data Sheet (MSDS)

MSDS #: 61.00

Revision Date: February 24, 2012

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Ammonium Nitrate

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 nitrate

Synonym: Nitric acid, ammonium salt

CAS#: 6484-52-2

SECTION 3 – HAZARDS IDENTIFICATION

White crystals. Odorless.

Strong oxidizer; may explode if heated under confinement; will explode at temperatures of 210 °C; explodes more readily if contaminated with combustible material.

Slightly toxic by ingestion. Irritating to body tissues. Avoid all body tissue contact.

FLINN AT-A-GLANCE

Health-1

Flammability-0

Reactivity-3

Exposure-1

Storage-2

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: Rinse mouth. Give large quantities of water for dilution. Call a physician or poison control at once.

SECTION 5 – FIRE FIGHTING MEASURES

Nonflammable, noncombustible solid.

May explode under confinement and high temperatures or if exposed to reducing agents.

Strong oxidizer. When heated to decomposition, may emit toxic fumes of NO_x and NH₃.

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

H-0

F-0

R-3

OX

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Restrict unprotected personnel from the area. Remove all ignition sources and water. 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 #8. Store with borates, chromates, manganates, and permanganates. Store away from all combustibles.

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.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

White, odorless crystals.

Solubility: Water soluble (100%), alcohol, and alkalis.

Formula: NH_4NO_3

Formula weight: 80.06

Boiling point: 210 °C (decomposes)

Melting point: 170 °C

Specific gravity: 1.725

SECTION 10 – STABILITY AND REACTIVITY

Store away from any source of combustion or ignition. Avoid contact with reducing agents, strong acids, finely powdered metals, and organic materials. Do not grind in a mortar and pestle - potentially shock sensitive.

Shelf life: Good, if stored properly.

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute effects: Irritant, gastrointestinal disturbances.

Chronic effects: N.A.

Target organs: Blood, central nervous system.

ORL-RAT LD_{50} : 2217 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 #26b is one option.

SECTION 14 – TRANSPORT INFORMATION

Shipping name: Ammonium Nitrate

Hazard class: 5.1, Oxidizer

UN number: UN1942

N/A = Not applicable

SECTION 15 – REGULATORY INFORMATION

TSCA-listed, EINECS-listed (229-347-8), 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.**