

FLINN SCIENTIFIC, INC.

Material Safety Data Sheet (MSDS)

MSDS #: 505.00

Revision Date: December 14, 2011

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Mercury(I) Nitrate Dihydrate

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

Mercury(I) nitrate dihydrate

Synonym: mercurous nitrate

CAS#: 14836-60-3

SECTION 3 — HAZARDS IDENTIFICATION

Small, colorless crystals. Faint nitric acid odor.

Highly toxic by ingestion and inhalation. Irritating to body tissues. Sensitizer. Avoid all body contact.

May explode if heated.

FLINN AT-A-GLANCE

Health-3

Flammability-0

Reactivity-3

Exposure-3

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

SECTION 5 — FIRE FIGHTING MEASURES

Nonflammable solid.

Strong oxidant. May explode if heated. Fire hazard when in contact with combustible materials.

Material will sublime and release Hg vapor and toxic fumes of NO_x when heated to decomposition.

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 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 #3. Store with amides, nitrates, and nitrites.

Store in a cool, dry place. Deliquescent; store in a Flinn Chem-Saf Bag. Store in a poisons cabinet. 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 a 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 0.1 mg/m³ (as Hg) (ACGIH)

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Small colorless crystals. Faint nitric acid odor.
Solubility: Soluble in small quantities of warm water.
Formula: $\text{Hg}_2(\text{NO}_3)_2 \cdot 2\text{H}_2\text{O}$
Formula weight: 561.22

Melting point: 70 °C
Specific gravity: 4.785

Discontinued product

SECTION 10 — STABILITY AND REACTIVITY

Avoid contact with ammonia and other alkali, strong reducing agents such as metals, and combustible organic materials.
Material will sublime and release mercury vapor and toxic fumes of NO_x when heated to decomposition.
Shelf life: Keep well-closed and protected from light.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Highly toxic, irritant, sensitizer
Chronic effects: Neurotoxic effects, neurological hazards
Target organs: Kidneys, nerves, GI system, blood

ORL-RAT LD₅₀: 170 mg/kg
IHL-RAT LC₅₀: N.A.
SKN-RAT LD₅₀: 2330 mg/kg

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 #27f is one option.

SECTION 14 — TRANSPORT INFORMATION

Shipping name: Mercurous nitrate
Hazard class: 6.1, Poison
UN number: UN1627
N/A = Not applicable

SECTION 15 — REGULATORY INFORMATION

TSCA-listed, RCRA code D001, D009.

SECTION 16 — OTHER INFORMATION

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