

FLINN SCIENTIFIC, INC.

Material Safety Data Sheet (MSDS)

MSDS #: 491.00

Revision Date: February 24, 2012

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manganese(II) Nitrate Solution

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

Manganese(II) nitrate (10377-66-9) 45-50%, Nitric acid (7697-37-2) 5%, and Water (7732-18-5) 45-50%.

Synonym: 3.9M - 4.3M molar solution, Manganous nitrate solution.

CAS#: None established

SECTION 3 — HAZARDS IDENTIFICATION

Clear pink acidic aqueous solution. Faint nitric acid odor.

Avoid contact with skin, eyes, and mucous membranes. Corrosive; will cause damage to eyes, skin, and mucous membranes. Toxic by ingestion and inhalation. Strong oxidizer.

Avoid contact with acetic acid and readily oxidized substances.

FLINN AT-A-GLANCE

Health-2

Flammability-0

Reactivity-1

Exposure-2

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: Do NOT induce vomiting. Rinse mouth. Call a physician or poison control at once.

SECTION 5 — FIRE FIGHTING MEASURES

Nonflammable, noncombustible solution.

Strong oxidizer; contact with combustible material may cause fire. When heated to decomposition, emits toxic fumes of 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. Remove all ignition sources and ventilate area. Contain the spill with sand or absorbent material, neutralize with sodium bicarbonate or calcium hydroxide, 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 #3. Store with amides, nitrates, and nitrites.

Store in a dedicated acid cabinet or in a Flinn Saf-Cube.

Never store with acetic acid. Use in a well-ventilated lab only.

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).

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Clear, pink liquid. Faint nitric acid odor.
Solubility: 50% w/w water solution of manganese (II) nitrate.
Soluble in water and alcohol.

Boiling point: >100 °C
pH <1
Specific gravity: 1.54

SECTION 10 — STABILITY AND REACTIVITY

Avoid contact with bases, reactive metals, organic materials, acetic acid, and other readily oxidized substances.
Shelf life: Indefinite, if stored properly.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Corrosive, respiratory disorders
Chronic effects: Lung damage, CNS
Target organs: Respiratory system, CNS, blood, kidneys

ORL-RAT LD₅₀: N.A.
IHL-RAT LC₅₀: N.A.
SKN-RBT LD₅₀: 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 #27f is one option.

SECTION 14 — TRANSPORT INFORMATION

Shipping name: Corrosive liquid, acidic, inorganic, N.O.S. (nitric acid)
Hazard class: 8, Corrosive
UN number: 3264
N/A = Not applicable

SECTION 15 — REGULATORY INFORMATION

Nitric acid: TSCA-listed, EINECS-listed (231-714-2), RCRA code D001, D002, 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.**