

# FLINN SCIENTIFIC INC.

"Your Safer Source for Science Supplies"

## Material Safety Data Sheet (MSDS)

MSDS #: 642.00

Revision Date: November 25, 2002

---

### Section 1 — Chemical Product and Company Identification

---

#### Potassium Nitrite

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

---

Potassium Nitrate

CAS#: 7758-09-0

---

### Section 3 — Hazards Identification

---

Pale yellow crystalline powder. Odorless.

Highly toxic by ingestion and inhalation. Irritating to body tissues. Avoid all body tissue contact. Strong oxidizer. Chronic exposure produces methemoglobinemia, nausea, vomiting, rapid pulse, headache and visual disturbances.

#### FLINN AT-A-GLANCE

Health-3  
Flammability-0  
Reactivity-3  
Exposure-1  
Storage-3

0 is low hazard, 3 is high hazard

---

### Section 4 — First Aid Measures

---

Call a physician, 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 15 minutes.

External: Wash continuously with fresh water for 15 minutes.

Internal: Give large quantities of water. Call a physician or poison control at once.

---

### Section 5 — Fire Fighting Measures

---

Use a triclass, dry chemical fire extinguisher.

Strong oxidizer. Dangerous fire or explosion risk if shocked or heated, or in contact with organic materials. When heated to decomposition, emits toxic fumes of K<sub>2</sub>O and NO<sub>x</sub>.

**Fire Fighting Instructions:** Use triclass, dry chemical fire extinguisher. Firefighters should wear PPE and SCBA with full facepiece operated in positive mode.

#### NFPA CODE

None Established

---

### Section 6 — Accidental Release Measures

---

Restrict unprotected personnel from area. Sweep up, place in 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 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 chemical-resistant apron. Use exhaust ventilation to keep airborne concentrations low.

### Section 9 — Physical and Chemical Properties

White or slightly yellow prisms or sticks.  
Solubility: Soluble in water; slightly in alcohol.  
Formula: KNO<sub>2</sub>  
Formula Weight: 85.11

Specific Gravity: 1.915  
Melting Point: 440 C (decomposition starts at 350 C).

### Section 10 — Stability and Reactivity

Avoid contact with strong reducers, finely powdered metals, strong acids, organic materials, heat, open flame or any source of ignition.

Shelf life: Good; slightly hygroscopic

### Section 11 — Toxicological Information

Acute effects: Toxic, irritant  
Chronic effects: N.A.  
Target organs: Blood, smooth muscle

ORL-RBT LD50: 200 mg/kg  
IHL-RAT LC50: 85 gm/m<sup>3</sup>/2H  
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 consult with state and local regulations.  
Flinn Suggested Disposal Method #12b is one option.

### Section 14 — Transport Information

Shipping Name: Potassium Nitrite  
Hazard Class: 5.1, Oxidizer  
UN Number: UN1488

N/A = Not applicable

### Section 15 — Regulatory Information

TSCA-listed, EINECS-listed (231-832-4), RCRA code D001.

### Section 16 — Other Information

Consult your copy of the Flinn Scientific Catalog/Reference Manual for additional information about laboratory chemicals. This Material Safety Data Sheet (MSDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. Flinn Scientific Inc. assumes no legal responsibility for use or reliance upon this data.

**FLINN SCIENTIFIC INC.**

"Your Safer Source for Science Supplies"

*Reduce Science Accidents--  
Use Flinn Chemicals*

flinn@flinnsci.com www.flinnsci.com  
P.O. Box 219 Batavia IL 60510  
(800) 452-1261 Fax (866) 452-1436