

FLINN SCIENTIFIC, INC.

Material Safety Data Sheet (MSDS)

MSDS #: 188.00

Revision Date: December 7, 2011

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Cadmium 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

Cadmium nitrate

CAS#: 10022-68-1

SECTION 3 — HAZARDS IDENTIFICATION

White crystal. Slight nitric acid odor.
Known human carcinogen (IARC-1). Avoid breathing dust.
Moderately toxic by inhalation and ingestion. Oxidizer, fire, and explosion risk.
When heated to decomposition, emits toxic fumes of Cd and NO_x.

FLINN AT-A-GLANCE

Health-3
Flammability-0
Reactivity-2
Exposure-3
Storage-1

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. Induce vomiting. Call a physician or poison control at once.

SECTION 5 — FIRE FIGHTING MEASURES

Noncombustible solid.
Heated to decomposition, may emit toxic fumes of cadmium and NO_x. Dangerous fire and explosion hazard.
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. 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. Store in a Flinn Chem-Saf bag. 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 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: PEL 0.2 mg/m³ (as Cd) (OSHA)

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

White crystal with a slight nitric acid odor.
Solubility: Soluble in water, ammonia, and alcohol.
Formula: $\text{Cd}(\text{NO}_3)_2 \cdot 4\text{H}_2\text{O}$
Formula weight: 308.49

Melting point: 59.5 °C
Specific gravity: 2.46

SECTION 10 — STABILITY AND REACTIVITY

Avoid contact with reducing agents, phosphorus, copper, copper alloys, organic materials, and heat.
Shelf life: Indefinite, if stored properly.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Toxic and corrosive.
Chronic effects: Known carcinogen.
Target organs: Kidneys and lungs.

ORL-RAT LD₅₀: 300 mg/kg
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: Nitrates, Inorganic N.O.S.
Hazard class: 5.1, Oxidizer
UN number: UN1477
N/A = Not applicable

SECTION 15 — REGULATORY INFORMATION

TSCA-listed, EINECS-listed (233-710-6), RCRA code D001, D006.

SECTION 16 — OTHER INFORMATION

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