

# 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<sub>x</sub>.

#### 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<sub>x</sub>. 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/m<sup>3</sup> (as Cd) (OSHA)

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**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

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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

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**SECTION 10 — STABILITY AND REACTIVITY**

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

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**SECTION 11 — TOXICOLOGICAL INFORMATION**

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

ORL-RAT LD<sub>50</sub>: 300 mg/kg  
IHL-RAT LC<sub>50</sub>: N.A.  
SKN-RBT LD<sub>50</sub>: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

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**SECTION 12 — ECOLOGICAL INFORMATION**

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Data not yet available.

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**SECTION 13 — DISPOSAL CONSIDERATIONS**

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Please review all federal, state and local regulations that may apply, before proceeding.  
Flinn Suggested Disposal Method #27f is one option.

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**SECTION 14 — TRANSPORT INFORMATION**

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Shipping name: Nitrates, Inorganic N.O.S.  
Hazard class: 5.1, Oxidizer  
UN number: UN1477  
N/A = Not applicable

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**SECTION 15 — REGULATORY INFORMATION**

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

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**SECTION 16 — OTHER INFORMATION**

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