

FLINN SCIENTIFIC, INC.

Material Safety Data Sheet (MSDS)

MSDS #: 256.00

Revision Date: February 2, 2012

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Cobalt 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

Cobalt nitrate

Synonym: Cobalt (II) nitrate, Cobaltous nitrate, Cobalt dinitrate

CAS#: 10026-22-9

SECTION 3 — HAZARDS IDENTIFICATION

Brown-orange powder. Slight nitric acid odor.

Cobalt and cobalt compounds are possible human carcinogens (IARC-2B).

Moderately toxic by ingestion or inhalation. Irritant to body tissues. Avoid breathing dust. Causes burns. May cause an allergic skin reaction.

Severe fire hazard in contact with organic materials.

FLINN AT-A-GLANCE

Health-2

Flammability-0

Reactivity-3

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. Call a physician or poison control at once.

SECTION 5 — FIRE FIGHTING MEASURES

Nonflammable, noncombustible solid.

Strong oxidizing material, severe fire hazard in contact with organic materials. When heated to decomposition, emits toxic fumes of NO_x and Co.

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. 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.

Deliquescent, store in Flinn Chem-Saf Bag. Store in a cool, dry place. 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: PEL 0.05 mg/m³ STEL 0.1 mg/m³ (as Co) (ACGIH)

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Brown-orange powder with a slight nitric acid odor.

Solubility: Soluble in most organic solvents.

Formula: $\text{Co}(\text{NO}_3)_2 \cdot 6\text{H}_2\text{O}$

Formula weight: 291.05

Melting point: 56 °C

Specific gravity: 1.88

SECTION 10 — STABILITY AND REACTIVITY

Avoid contact with reducers, organic materials, heat, and moisture.

Shelf life: Poor, deliquescent.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Harmful dust, irritant.

Chronic effects: N.A.

Target organs: Lungs, thyroid.

ORL-RAT LD₅₀: 434 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 (233-402-1), RCRA code D001.

SECTION 16 — OTHER INFORMATION

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