

## **MATERIAL SAFETY DATA SHEET**

### **COBALT (II) NITRATE 97%**

**Hexahydrate**

**(Cobaltous Nitrate)**

**Extra Pure**

**MSDS CAS: 10026-22-9**

#### **Section 1: Chemical Product and Company Identification**

##### **Section 1: Chemical Product**

**Product Name:** COBALT (II) NITRATE Hexahydrate

**CAS#:** 10026-22-9

**Synonym:** Cobaltous Nitrate

**Chemical Name:** Cobalt (II) Nitrate

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

**Brand : OXFORD**

##### **Details Of The Supplier Of The Safety Data Sheet :**

##### **Company identification:**

**OXFORD LAB FINE CHEM LLP**

**Unit. No. 12, 1st Floor, Neminath Industrial Estate No. 6,  
Navghar, Vasai (East). Palghar - 401 210.  
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**Tel: 91-250-2390989**

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#### **Section 2: Composition and Information on Ingredients**

##### **Composition:**

| Name                | CAS #      | % by Weight |
|---------------------|------------|-------------|
| Cobalt (II) Nitrate | 10026-22-9 | 100         |

## Section 2: Composition and Information on Ingredients (Continued)

**Toxicological Data on Ingredients:** Cobalt nitrate hexahydrate: ORAL (LD50): Acute: 691 mg/kg [Rat].

## Section 3: Hazards Identification

### **Potential Acute Health Effects:**

Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Prolonged exposure may result in skin burns and ulcerations. Over-exposure by inhalation may cause respiratory irritation.

### **Potential Chronic Health Effects:**

**CARCINOGENIC EFFECTS:** Not available.

**MUTAGENIC EFFECTS:** Not available.

**TERATOGENIC EFFECTS:** Not available.

**DEVELOPMENTAL TOXICITY:** Not available.

The substance is toxic to lungs, gastrointestinal tract, upper respiratory tract, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage.

## Section 4: First Aid Measures

### **Eye Contact:**

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention.

### **Skin Contact:**

After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention.

### **Serious Skin Contact:**

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

**Inhalation:** Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

## Section 4: First Aid Measures (Continued)

### Serious Inhalation:

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

### Ingestion:

Do not induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Serious Ingestion: Not available.

## Section 5: Fire and Explosion Data

Flammability of the Product: Non-flammable.

Auto-Ignition Temperature: Not available.

Flash Points: Not available.

Flammable Limits: Not available.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Not available.

### Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available.

Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions: Not available.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

## Section 6: Accidental Release Measures

**Small Spill:** Use appropriate tools to put the spilled solid in a convenient waste disposal container.

**Large Spill:**

Oxidizing material. Stop leak if without risk. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

## Section 7: Handling and Storage

**Precautions:**

Keep away from heat. Keep away from sources of ignition. Keep away from combustible material do not ingest. Do not breathe dust. Wear suitable protective clothing In case of insufficient ventilation, wear suitable respiratory equipment if ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.

**Storage:**

Oxidizing materials should be stored in a separate safety storage cabinet or room.

## Section 8: Exposure Controls/Personal Protection

**Engineering Controls:**

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Personal Protection:**

Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

**Personal Protection in Case of a Large Spill:**

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits:**

TWA: 0.02 (mg/m<sup>3</sup>) from ACGIH [1995] Consult local authorities for acceptable exposure limits.

## Section 9: Physical and Chemical Properties

**Physical state and appearance:** Solid.

|                               |  |
|-------------------------------|--|
| <b>Odor</b>                   | : Not available.                           |
| <b>Taste</b>                  | : Not available.                           |
| <b>Molecular Weight</b>       | : 291.03 g/mole                            |
| <b>Color</b>                  | : Not available.                           |
| <b>pH (1% soln/water)</b>     | : Not available.                           |
| <b>Boiling Point</b>          | : Decomposes. (74°C or 165.2°F)            |
| <b>Melting Point</b>          | : 56°C (132.8°F)                           |
| <b>Critical Temperature</b>   | : Not applicable.                          |
| <b>Specific Gravity</b>       | : 1.88 (Water = 1)                         |
| <b>Vapor Pressure</b>         | : Not applicable.                          |
| <b>Vapor Density</b>          | : Not applicable.                          |
| <b>Volatility</b>             | : Not available.                           |
| <b>Odor Threshold</b>         | : Not applicable.                          |
| <b>Water/Oil Dist. Coeff.</b> | : Not applicable.                          |
| <b>Ionicity (in Water)</b>    | : Not available.                           |
| <b>Dispersion Properties</b>  | : See solubility in water.                 |
| <b>Solubility</b>             | : Easily soluble in cold water, hot water. |

## Section 10: Stability and Reactivity Data

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Not available.

**Incompatibility with various substances:** Not available.

**Corrosivity:** Not available.

**Special Remarks on Reactivity:** Not available.

**Special Remarks on Corrosivity:** Not Available.

**Polymerization:** No.

## Section 11: Toxicological Information

**Routes of Entry:** Absorbed through skin. Eye contact. Inhalation. Ingestion.

**Toxicity to Animals:** Acute oral toxicity (LD50): 691 mg/kg [Rat].

**Chronic Effects on Humans:**

The substance is toxic to lungs, gastrointestinal tract, upper respiratory tract, central nervous system (CNS).

**Other Toxic Effects on Humans:**

Hazardous in case of skin contact (irritant), of ingestion, of inhalation.

**Special Remarks on Toxicity to Animals:** Not Available.

**Special Remarks on Chronic Effects on Humans:** Not Available.

**Special Remarks on other Toxic Effects on Humans:** Not Available.

## Section 12: Ecological Information

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Products of Biodegradation:**

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:**

The products of degradation are less toxic than the product itself.

**Special Remarks on the Products of Biodegradation:** Not available.

## Section 13: Disposal Considerations

**Waste Disposal:**

## Section 14: Transport Information

### Land transport (ADR-RID)

Proper shipping name: NITRATES, INORGANIC, N.O.S

UN N°: 1477

H.I. nr: 50

ADR - Class: 5.1

Labelling - Transport: 5.1 : Oxidizing substances.

### Sea transport (IMDG) [English only]

Proper shipping name: NITRATES, INORGANIC, N.O.S.

UN N°: 1477

IMO-IMDG - Class or division: 5.1 : Oxidizing substances.

IMO-IMDG - Packing group: III

### Air transport (ICAO-IATA) [English only]

Proper shipping name: NITRATES, INORGANIC, N.O.S.

UN N°: 1477

IATA - Class or division: 5.1 : Oxidizing substances.

IATA - Packing group: III

## Section 15: Other Regulatory Information

### Federal and State Regulations:

Pennsylvania RTK: Cobalt nitrate hexahydrate Massachusetts RTK: Cobalt nitrate hexahydrate TSCA 8(b) inventory: Cobalt nitrate hexahydrate SARA 313 toxic chemical notification and release reporting: Cobalt nitrate hexahydrate

### Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

### Other Classifications:

WHMIS (Canada): CLASS C: Oxidizing material. CLASS D-2A: Material causing other toxic effects (VERY TOXIC).

DSCL (EEC): R36/38- Irritating to eyes and skin.

## Section 15: Other Regulatory Information (Continued)

**HMIS (U.S.A.):**

**Health Hazard: 2**

**Fire Hazard: 0**

**Reactivity: 0**

**Personal Protection: E**

**National Fire Protection Association (U.S.A.):**

**Health: 2**

**Flammability: 0**

**Reactivity: 0**

**Specific hazard:**

**Protective Equipment:**

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

## Section 16 - Additional Information

**References:** Not available.

**Other Special Considerations:** Not available.



## ***Disclaimer:***

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