

MATERIAL SAFETY DATA SHEET
Cobalt(II) nitrate hexahydrate

Section 1 - Chemical Product and Company Identification

MSDS Name:	Cobalt(II) nitrate hexahydrate
Catalog Numbers:	21309-0000, 21309-0010, 21309-1000, 21309-5000, 21921-0000, 21921-1000, 21921-5000, 42358-0000, 42358-1000, 42358-5000
Synonyms:	Cobaltous nitrate hexahydrate
Company Identification:	Acros Organics BVBA Janssen Pharmaceuticaaan 3a 2440 Geel, Belgium
Company Identification: (USA)	Acros Organics One Reagent Lane Fair Lawn, NJ 07410
For information in the US, call:	800-ACROS-01
For information in Europe, call:	+32 14 57 52 11
Emergency Number, Europe:	+32 14 57 52 99
Emergency Number US:	201-796-7100
CHEMTREC Phone Number, US:	800-424-9300
CHEMTREC Phone Number, Europe:	703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
10026-22-9	Cobalt(II) nitrate hexahydrate	>98%	unlisted

Hazard Symbols: XN O



Risk Phrases: 22 36/37/38 40 42/43 43 8

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Harmful if swallowed. Irritating to eyes, respiratory system and skin. Limited evidence of a carcinogenic effect. May cause sensitization by inhalation and skin contact. May cause sensitization by skin contact. Contact with combustible material may cause fire.

Potential Health Effects

- Eye:** Causes eye irritation.
- Skin:** Causes skin irritation. May be harmful if absorbed through the skin. May cause sensitization by skin contact.
- Ingestion:** Harmful if swallowed. May cause irritation of the digestive tract.
- Inhalation:** Causes respiratory tract irritation. May be harmful if inhaled. May cause respiratory

sensitization.

Chronic:

Section 4 - First Aid Measures

- Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
- Skin:** Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
- Ingestion:** Get medical aid. Wash mouth out with water.
- Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

Section 5 - Fire Fighting Measures

- General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Strong oxidizer. Contact with other material may cause fire.
- Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or chemical foam.

Section 6 - Accidental Release Measures

- General Information:** Use proper personal protective equipment as indicated in Section 8.
- Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container.

Section 7 - Handling and Storage

- Handling:** Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes.
- Storage:** Do not store near combustible materials. Store in a cool, dry place. Store in a tightly closed container.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

CAS# 10026-22-9:

United Kingdom, WEL - TWA: (cobalt compounds): 0.1 mg/m³ TWA (as Co)
United Kingdom, WEL - STEL: (cobalt compounds): 0.3 mg/m³ STEL (as Co)

Japan: (cobalt compounds): 0.05 mg/m³ OEL (as Co)

Malaysia: (cobalt, inorganic compounds): 0.02 mg/m³ TWA (as Co)

Russia: (cobalt, inorganic compounds): 0.01 mg/m³ TWA (aerosol)

Spain: (cobalt, inorganic compounds): 0.02 mg/m³ VLA-ED (as Co)

Personal Protective Equipment

- Eyes:** Wear chemical splash goggles.
- Skin:** Wear appropriate protective gloves to prevent skin exposure.
- Clothing:** Wear appropriate protective clothing to prevent skin exposure.
- Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Solid
Color: red - pink - brown
Odor: odorless
pH: Not available
Vapor Pressure: Not available
Viscosity: Not available
Boiling Point: Not available
Freezing/Melting Point: 55 deg C (131.00°F)
Autoignition Temperature: Not available
Flash Point: Not available
Explosion Limits: Lower: Not available
Explosion Limits: Upper: Not available
Decomposition Temperature:
Solubility in water: 134 g/100ml
Specific Gravity/Density: 1.880
Molecular Formula: CoN2O6.6H2O
Molecular Weight: 291.02

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures. Hygroscopic: absorbs moisture or water from the air.
Conditions to Avoid: Incompatible materials, moisture, excess heat, combustible materials.
Incompatibilities with Other Materials Reducing agents.
Hazardous Decomposition Products Nitrogen oxides.
Hazardous Polymerization Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 10026-22-9: QU7355500
LD50/LC50: RTECS:
CAS# 10026-22-9: Oral, rat: LD50 = 691 mg/kg;
Carcinogenicity: Cobalt(II) nitrate hexahydrate - IARC: Group 2B carcinogen
Other: The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Ecotoxicity: Fish: Fathead Minnow: LC50: 0,110 mg/Lt; 96H; flow-through

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

	IATA	IMO	RID/ADR
Shipping Name:	NITRATES, INORGANIC, N.O.S.	NITRATES, INORGANIC, N.O.S.	NITRATES, INORGANIC, N.O.S.

Hazard Class:	5.1	5.1	5.1
UN Number:	1477	1477	1477
Packing Group:	II	II	II

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN O

Risk Phrases:

- R 22 Harmful if swallowed.
- R 36/37/38 Irritating to eyes, respiratory system and skin.
- R 40 Limited evidence of a carcinogenic effect.
- R 42/43 May cause sensitization by inhalation and skin contact.
- R 43 May cause sensitization by skin contact.
- R 8 Contact with combustible material may cause fire.

Safety Phrases:

- S 17 Keep away from combustible material.
- S 22 Do not breathe dust.
- S 24 Avoid contact with skin.
- S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
- S 37/39 Wear suitable gloves and eye/face protection.
- S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 10026-22-9: 2

Canada

US Federal

TSCA

CAS# 10026-22-9 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form in on the Inventory (40CFR720.3(u)(2)).

Section 16 - Other Information

MSDS Creation Date: 7/16/1996

Revision #1 Date 3/09/2004

Revisions were made in Sections: General revision.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.
