



Chemistry for Safer, Sustainable Life

SAFETY DATA SHEET

Section 1: Identification

Product Name: Cobalt (II) formate dihydrate

Product ID: 100FO94

CAS: 6424-20-0

Chemical Name/Synonyms: Formic acid cobalt salt dihydrate, cobalt (II) methanoate dihydrate, cobalt diformate dihydrate

Molecular Formula: C₂H₆CoO₆

Molecular weight: 187.01 g/mol

Potential Uses: catalyst, reagent, cobalt oxide precursor, ceramics precursor

Company: BioFuran Materials LLC

920 William Pitt Way, Pittsburgh, PA 15238

In emergency call 911 or for information about this SDS, use this contact phone#: 412-376-7101

Section 2: GHS Hazard(s) Identification

Hazard Classification: Cobalt (II) formate dihydrate is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

May cause skin irritation (Category 1), H317

May be harmful if swallowed (Category 2), H303

May cause respiratory and breathing problems if inhaled (Category 1), H372

Signal Word(s): Warning

Pictograms:



Precautionary Statements:

P280 – Wear protective gloves / protective clothing, eye protection / face protection

P264 – Wash hands thoroughly after handling

P302+P352 – If on skin, wash with plenty of soap and water

P332+P313 – If skin irritation occurs, get medical advice / attention

P305+P351+P338 – If in eyes, rinse thoroughly with water for several minutes. Remove contact lenses if present. Continue rinsing for several minutes.

P337+P313 – If eye irritation persists, get medical advice/attention

P321 – See first aid instructions on this SDS

P362+P364 – Take off contaminated clothing and wash them before reuse.

Description of other hazards: none available

Section 3: Composition/ Information on Ingredients

Chemical Name	Synonym	CAS#	Conc.
Cobalt (II) formate dihydrate	Formic acid cobalt (II) salt dihydrate	6424-20-0	100%

Section 4: First-Aid Measures

After skin contact: Wash off with soap and plenty of water. Consult a physician.

After eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

After inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

After swallowing: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Section 5: Fire-Fighting Measures

Suitable extinguishing agents: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters: Do not enter fire area without proper protective equipment, including respiratory protection. Avoid contact with skin and eyes. Do not breathe dust.

Section 6: Accidental Release Measures

Personal precautions: Wear protective equipment as described in Section 8.

Measures for environmental protection: Do not dispose product in municipal sewers or drains. Notify authorities if product enters sewers or public waters.

Measures for cleaning/collecting: Pick up and arrange disposal without creating dust. Sweep up and shovel any spillages. Keep all wastes and residues in suitable, closed containers for disposal.

Section 7: Handling and Storage

Handling: Avoid contact with skin and eyes. Avoid dust formation and do not breathe dust. Provide local exhaust or general room ventilation to minimize exposure to dust.

Storage: Keep container tightly closed.

Section 8: Exposure Controls/Personal Protection

General protective and hygienic measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

Breathing equipment: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified dust and mist (teal cartridge) respirator.

Protection of hands: Neoprene or nitrile rubber gloves.

Eye protection: Chemical goggles. Contact lenses should not be worn.

Skin protection: Long sleeved clothing should not be worn.

Engineering measures: Ensure adequate ventilation in work room.

Section 9: Physical and Chemical Properties

Appearance: Pink crystalline powder
Odor: No data available
pH: No data available
Melting point/melting range: Dehydrates/melts around 138-142°C.
Boiling point/boiling range: No data available
Flash point: No data available
Evaporation rate: No data available
Flammability: No data available
Upper/lower flammability or explosive limits: No data available
Auto ignition temperature: No data available
Danger of explosion: No explosion hazards known
Vapor pressure: No data available
Vapor density: No data available
Relative density: 1.79-1.83g/mL
Solubility in/Miscibility with water: moderately soluble in water

Section 10: Stability and Reactivity

Reactivity: No data available
Chemical stability: Stable under ambient conditions
Conditions to avoid: Avoid breathing dust. Avoid direct contact with eyes or skin.
Incompatible materials: strong oxidizing agents, phosphates, soluble carbonates, and sulfuric acid
Hazardous decomposition products: Metal fumes and metal oxides, oxides of carbon

Section 11: Toxicological Information

Acute toxicity: No data available
Potential routes of exposure/potential health effects
Skin: Causes skin irritation
Eye: Causes eye irritation
Inhalation: May cause irritation
Ingestion: No data available
Carcinogenic effects: No data available
Mutagenic effects: No data available
Reproductive toxicity: No data available
Sensitization: possible through inhalation or skin contact
Target organs: No data available

Section 12: Ecological Information (non-mandatory)

Ecotoxicity: No data available.
Mobility: Moderately soluble in water but persistence maybe unlikely.
Biodegradation: No data available
Bioaccumulation: No data available

Section 13: Disposal Considerations (non-mandatory)

This material or its residues should not be disposed in drains or in regular trash cans. Contact a licensed waste disposal professional to dispose this material or its residues.

Section 14: Transport Information (non-mandatory)

DOT regulations: Not regulated as dangerous goods

- **Land transport ADR/RID (cross-border):** Not regulated for transport
- **Maritime transport IMDG:** Not dangerous goods
- **Air transport ICAO-TI and IATA-DGR:** Not dangerous goods

Section 15: Regulatory Information (non-mandatory)

US Federal Regulations

SARA Section 302: This material is not subject to reporting requirements of SARA Title III, Section 302

SARA Section 313: This material is subject to reporting levels established by SARA Title III, Section 313

TSCA (Toxic Substances Control Act): Cobalt (II) formate dihydrate is listed on the United States TSCA

Section 16: Other Information

SDS date of preparation/update: 09/10/2020 Version 001