



Material Data Safety Sheet

Quick Identifier: Cobalt

I. PRODUCT IDENTIFICATION

Trade Name:	Cobalt	Formula:	Co
Synonyms:		Molecular Weight:	
CAS #:	7440-48-4		

II. HAZARDOUS INGREDIENTS

<u>Hazardous Components:</u>	<u>OSHA PEL:</u>	<u>ACGIH TLV:</u>	<u>Other Limits:</u>
Cobalt	.1mg/m3	.05mg/m3	
Sec. 302 (EHS):	No	Sec. 304 RQ: No	Sec. 313: yes
HMIS Ratings (0-4): Health:	3	Flammability: 0	Reactivity: 0
HMIS Protective Equipment:	G: glasses, gloves, apron, dust mask.		

III. PHYSICAL DATA

Boiling Point:	3100 C	Melting Point:	1493 C
Specific Gravity (H₂O=1):	N/A	Vapor Density (Air=1):	N/A
Vapor Pressure (mm Hg):	N/A	Evaporation Rate:	N/A
% Volatiles by Volume:	N/A	Solubility in H₂O:	Insoluble

Appearance and Odor: Metallic grey, odorless

IV. FIRE AND EXPLOSION HAZARDS DATA

Flash Point/Method:	None
Explosive Limits:	LEL: N/A UEL: N/A
Extinguishing Media:	Use suitable media for surrounding materials and type of fire.
Special Fire Fighting Procedures:	Firefighters must wear full face. Usage of self-contained breathing apparatus is necessary with full protective clothing in order to prevent contact with skin and eyes. The fumes from the fire are hazardous.
Unusual Fire and Explosion Hazards:	The contact with strong acids will form a flammable hydrogen gas. Will ignite on contact with bromine pentafluoride.

V. HEALTH HAZARD INFORMATION

Routes of Entry:	Inhalation, Skin and Eyes, Ingestion.				
Target Organs:	N/A				
Carcinogenicity: NTP:	No	IARC Monographs:	No	OSHA Regulated:	No
LD50/LC50:	No toxicity data recorded.				

Health Hazards (Acute and Chronic):

Inhalation:

Acute: Shortness of breath may occur as well as coughing, weight loss and pulmonary damage.

Chronic: Diffuse nodular fibrosis and respiratory sensitivity may occur.

Ingestion:

Acute: Moderately toxic by ingestion. May cause cobalt poisoning.

Chronic: N/A

Skin:

Acute: May cause irritation.

Chronic: Allergic sensitization and dermatitis may occur.

Eye:

Acute: May cause irritation of eyes.

Chronic: N/A

Signs and Symptoms of Exposures:

Inhalation: Irritation of the respiratory system.

Ingestion:

Skin: Irritation of skin.

Eye: Irritation of eyes.

Medical Conditions Generally Aggravated by Exposure: Pre-existing respiratory or skin disorder.

EMERGENCY AND FIRST AID PROCEDURES:

INHALATION: Remove victim to fresh air. Give oxygen if having a hard time breathing. Seek medical attention.

INGESTION: Induce vomiting. Seek medical attention.

SKIN: Remove contaminated clothing, brush material off skin. Wash affected area with soap and water. Seek medical attention.

EYE: Flush with lukewarm water. Lifting upper and lower eyelids for at least 15 minutes. Seek medical attention.

VI. REACTIVITY DATA

Stability:	Stable
Incompatibility (Material to avoid):	Strong acids, oxidizing agents, hydrazinium nitrate, ammonium nitrate + heat, 1,3,4,7 tetramethylisindol, bromine pentafluoride.
Hazardous Decomposition Products:	Hydrogen gas.
Hazardous Polymerization.	Will not occur.
Conditions to Avoid:	None

VII. SPILL OR LEAK PROCEDURES

Steps to Be Taken in Case Material Is Released or Spilled:	Wear appropriate respiratory and protective equipment specified. Isolate spill area and provide ventilation. Take care not to raise dust.
Waste Disposal Method:	In accordance with local, state and federal waste disposal regulations.
Hazard Label Information:	N/A
Precautions to Be Taken in Handling and Storing:	No special precautions are required.

VIII. SPECIAL PROTECTION INFORMATION

Respiratory Protection:	NIOSH approved dust respirator.
Ventilation: Local Exhaust:	Recommended.
Mechanical (General):	N/A
Protective Gloves:	Rubber Gloves
Eye Protection:	Safety glasses
Other Protective Clothing or	Protective gear suitable to prevent contamination.

Equipment:

Work/Hygienic/Maintenance Normal hygienic practices.

Practices:

IX. ADDITIONAL COMMENTS

Some of the chemicals listed herein are research or experimental substances which may be toxic, as defined by various governmental regulations. In accordance with Environmental Protection Agency regulations and the Toxic Substance Control Act (TSCA), these materials should only be handled by, or under the direct supervision of a "technically qualified individual", as defined in 40 CFR 710.2(aa).

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