COBALT

SAFETY DATA SHEET

DATE OF LAST REVISION: 0 6/23/15

Section 1: Identification

Product Name: Cobalt

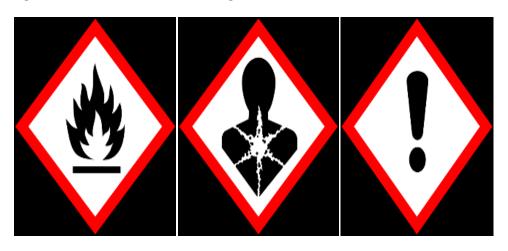
CAS Number: 7440-48-4 / **EC Number:** 231-158-0

Company: Angstrom Sciences, Inc.

40 South Linden Street
Duquesne, PA 15110
For more information call: 412-469-8466

(Monday - Friday 9:00-5:00 EST)

Section 2: HAZARD IDENTIFICATION
Signal Word: Danger



Hazard Statements: H228 Flammable solid

P317: May cause an allergic skin reaction

P334: May cause allergy or asthma symptoms or breathing difficulties

if inhaled

Precautionary Statements: P210: Keep away from heat/sparks/open flames/hot surfaces - No

smoking

P261: Avoid breathing dust/fume/vapor

P280: Wear protective gloves/protective clothing/eye protection/face

protection

P284: Wear respiratory protection

P3742 + P311: If experiencing respiratory symptoms: Call a POISON

CENTER or doctor/physician.

P363: Wash contaminated clothing before reuse

P501: Dispose of contents/container in accordance with

local/regional/national/international regulations

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HMIS Health Ratings (0-4):	Powder	Bulk
Health:	1	0
Flammability:	3	0
Physical	1	0

Section 3: Composition/Information on Ingredients

Chemical characterization: Metal

Additional Names: None
Percentage: 100 wt%

CAS# Description: 7440-48-4

EC number: 231-158-0

Section 4: FIRST AID MEASURES

General Treatment: Seek medical attention if symptoms persist.

Special Treatment: None Important Symptoms: None

Eye Contact: Flush eyes with water, blinking often for several minutes. Remove contact lenses if

present and easy to do. Continue rinsing.

Skin Contact: Wash affected area with mild soap and water. Remove any contaminated clothing. **Inhalation:** Remove to fresh air. If required, give artificial respiration. Seek medical advice.

Ingestion: Seek medical treatment.

Section 5: FIRE FIGHTING MEASURES

Flammability: Flammable as powder only

Special Fire Fighting Procedure: Use full-face, self contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. See section 10 for decomposition products.

Extinguishing Media: Do not use water for metal fires - use extinguishing powder

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate respiratory and protective equipment specified in special protection information. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal. Take care not to raise dust

Environmental Precautions: Isolate runoff to prevent environmental pollution.

Section 7: HANDLING AND STORAGE

Handling Precautions for safe handling: Wash thoroughly after handling.

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Conditions for safe storage, including any incompatibilities Store in a cool dry place in a tightly sealed container. Store apart from materials and conditions listed in Section 10.

Work/Hygienic Maintenance: Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.

Ventilation: Provide sufficient ventilation to maintain concentration at or below threshold limit.

Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Permissible Exposure Limits: 0.1 mg/m3 as Co, for metal dust and fume, long-term value

Threshold Limit Value: 0.02 mg/m³ as Co, long-term value

Special Equipment: None

Respiratory Protection: Dust respirator

Protective Gloves: Rubber Gloves

Eye Protection: Safety glasses or goggles

Body Protection: Protective work clothing. Wear close-toed shoes and long sleeves/pants.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Form: Powder, Granules, Pellets, Sputtering target, Custom parts

Color: Grey/Black Powder

Odor:
Water Solubility:
Boiling Point:
Plash Point:
Autoignition Temperature:
Molecular Weight:
Odorless
Insoluble
2927° C
1495°C
N/A
N/A
8.92 g/cc
58.93 g/mol

Section 10: STABILITY AND REACTIVITY

Reactivity: Acids, Oxidizing Agents

Chemical Stability: Stable under recommended storage conditions

Incompatible Conditions: Protect against electrostatic charges

Hazardous Decomposition Products: Metal oxide fume

Section 11: TOXICOLOGICAL INFORMATION

Potential Health Effects: Eyes: Causes irritating effect

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Skin: May cause irritation
Ingestion: May cause irritation
Inhalation: May cause irritation

Chronic: N/A

Signs & Symptoms: N/A Aggravated Medical Conditions: N/A

Median Lethal Dose: 6171 mg/kg for rat by mouth

Carcinogen: IARC-2B: Possibly carcinogenic to humans: limited evidence in

human in the absence of sufficient evidence in experimental

animals.

ACGIH-A3: Animal carcinogen: Agent is carcinogenic in experimental animals at a relatively high dose, by routes of administration, at sites, of exposure. Available epidemiologic studies do not confirm an increased risk of cancer in exposed humans. Available evidence suggests that the agent is not likely to

cause cancer in humans except under uncommon or unlikely

routes or level of exposure.

Section 12: ECOLOGICAL INFORMATION

Aquatic Toxicity: Low

Persistence Bioaccumulation Toxicity: No Very Persistent, Very Bioaccumulative: No

Notes: N/A

Section 13: DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state, national, and international regulations

Section 14: TRANSPORT INFORMATION

Hazardous: Hazardous as powder only.



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Hazard Class: 4.1 Flammable solids, self-reactive substances and solid desensitized explosives.

Packing Group:

UN Number: UN3089

Proper Shipping Name: Metal powders, flammable, n.o.s. (Cobalt powder)

Section 15: REGULATORY INFORMATION

Sec 302 Extremely Hazardous: No
Sec 304 Reportable Quantities: N/A
Sec 313 Toxic Chemicals: Yes

Section 16: OTHER INFORMATION

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.