

CHROMIUM

SAFETY DATA SHEET

DATE OF LAST REVISION: 07/22/15

Section 1: Identification

Product Name: Chromium
CAS Number: 7440-47-3 / **EC Number:** 231-157-5
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



Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008

The substance is not classified as hazardous to health or the environment according to the CLP regulation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Not applicable

Information concerning particular hazards for human and environment: No information known.

Hazards not otherwise classified: No information known.

Label elements

Labeling according to Regulation (EC) No 1272/2008 Not applicable

Hazard pictograms Not applicable

WHMIS classification Not controlled

classification system

HMIS ratings (scale 0-4)

(Hazardous Materials Identification System)

Health (acute effects) = 0

Flammability = 0

Physical Hazard = 0

Other hazards

Results of PBT and vPvB assessment

CHROMIUM
SAFETY DATA SHEET

PBT: Not applicable
vPvB: Not applicable

Section 3: Composition/Information on Ingredients

Chemical characterization: Metal

CAS# Description: 7440-47-3

Identification number(s):

EC number: 231-157-5

Section 4: FIRST AID MEASURES

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

Suitable extinguishing Media: Do not use water for metal fires - use CO₂, sand, extinguishing powder

Flammability: Non-Flammable, except as powder

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.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation.

Environmental Precautions: Isolate runoff to prevent environmental pollution.

Section 7: HANDLING AND STORAGE

Handling Precautions for safe handling: Wash thoroughly after handling.

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: 1 mg/m³ as Cr, metal, long-term value

CHROMIUM
SAFETY DATA SHEET

	0.5 mg/m ³ as Cr, inorganic compounds, long-term value
Threshold Limit Value:	0.5 mg/m ³ as Cr, long-term value
Special Equipment:	None
Respiratory Protection:	Use a respirator with type N95 (USA) or PE (EN 143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards.
Protective Gloves:	Nitrile rubber, NBR
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
Odor:	Odorless
Water Solubility:	Insoluble
Boiling Point:	2671° C
Melting Point:	1907°C
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	7.19 g/cc
Molecular Weight:	51.996 g/mol

Section 10: STABILITY AND REACTIVITY

Reactivity:	Reacts with strong oxidizing agents
Chemical Stability:	Stable under recommended storage conditions
Incompatible Conditions:	None
Hazardous Decomposition Products:	Metal oxide fume

Section 11: TOXICOLOGICAL INFORMATION

Potential Health Effects:

Eyes: May cause irritation

Skin: May cause irritation

Ingestion: May cause irritation

Inhalation: May cause irritation

Chronic: N/A

CHROMIUM
SAFETY DATA SHEET

Signs & Symptoms: N/A
Aggravated Medical Conditions: N/A
Median Lethal Dose: N/A
Carcinogen: ACGIH A4: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of its carcinogenicity in humans and/or animals. (Inhalation) EPA-A: human carcinogen: sufficient evidence from epidemiologic studies to support a casual association between exposure and cancer. (Inhalation) EPA-K: Known human carcinogens. IARC-3: Not classifiable as to carcinogenicity to humans (Oral) EPA-D: Not classifiable as to human carcinogenicity: inadequate human and animal evidence of carcinogenicity or no data are available.

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.



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

Packing Group: III

UN Number: UN3089

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

Section 15: REGULATORY INFORMATION

Sec 302 Extremely Hazardous: No

Sec 304 Reportable Quantities: N/A

Sec 313 Toxic Chemicals: Yes

CHROMIUM
SAFETY DATA SHEET

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.