

NICKEL
SAFETY DATA SHEET
DATE OF LAST REVISION: 10/16/14

Section 1: Identification

Product Name: Nickel
CAS Number: 7440-02-0 / **EC Number:** 231-111-4
Company: Angstrom Sciences, Inc.
40 South Linden Street
Duquesne, PA 15110
For more information call: 412-469-8466
(Monday - Friday 9:00 AM -5:00 PM EST)

Section 2: HAZARD IDENTIFICATION

Signal Word: Danger



Hazard Statements:

H228: Flammable solid powder
H317: May cause allergic skin reaction
H351: Suspected of causing cancer
H372: Causes damage to lungs, kidneys, and liver through prolonged or repeated inhalative exposure

Precautionary Statements:

P210: Keep away from sparks/heat. No smoking
P241: Use explosion-proof equipment
P260: Do not breathe dust/fume
P302 + P352: If on skin: wash with plenty of water

HMIS Health Ratings (0-4):

Health: 1
Flammability: 0 (3 if powder)
Physical: 1

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Section 3: Composition/Information on Ingredients

Chemical characterization: Metal

CAS# Description: 7440-02-0

Percentage: 100 wt%

EC number: 231-111-4

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: Give one to two glasses of water and induce vomiting. Never induce vomiting or give anything by mouth to an unconscious person.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing Media: Do not use water for metal fires. Use special powder, sand, CO2

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.

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.

Conditions for safe storage, including any incompatibilities Store in a cool dry place in a tightly sealed container.

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.

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Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Permissible Exposure Limits:	1.0 mg/m ³ as Ni, Long-term (USA)
Threshold Limit Value:	1.5 mg/m ³ as Ni, long-term (USA)
Special Equipment:	None
Respiratory Protection:	Dust respirator, NIOSH approved
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:	Metallic Grey
Odor:	Odorless
Water Solubility:	Insoluble
Boiling Point:	2732° C
Melting Point:	1455°C
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	8.91 g/cc
Molecular Weight:	58.693 g/mol

Section 10: STABILITY AND REACTIVITY

Reactivity:	Halogens, Oxidizing agents
Chemical Stability:	Stable under recommended storage conditions
Incompatible Conditions:	Excessive heat, sparks
Hazardous Decomposition Products:	Metal oxide fume

Section 11: TOXICOLOGICAL INFORMATION

Potential Health Effects:

Eyes: Cause irritation

Skin: May cause allergic reaction

Ingestion: May cause irritation

Inhalation: May cause irritation

Chronic: Causes damage to the lung, the kidneys and the liver through prolonged or repeated exposure by inhalation.

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Routes of Entry: Inhalation
Target Organs: Lung, the kidneys and the liver
Signs & Symptoms: N/A
Aggravated Medical Conditions: N/A
Median Lethal Dose: N/A
Carcinogen: Suspected of causing cancer

IARC-2B: Possibly carcinogenic to humans: limited evidence in humans in the absence of sufficient evidence in experimental animals.
ACGIH A5: Not suspected as a human carcinogen: Not suspected as a human carcinogen on the basis of properly conducted epidemiologic studies in humans. Studies have sufficiently long follow-up, reliable exposure histories, sufficiently high dose, and adequate statistical power to conclude that exposure to the agent does not convey a significant risk of cancer to humans. Evidence suggesting a lack of carcinogenicity in experimental animals will be considered if it is supported by other relevant data.
NTP-R: Reasonably anticipated to be a carcinogen: limited evidence from studies in humans or sufficient evidence from studies in experimental animals.

Section 12: ECOLOGICAL INFORMATION

Ecological data is not available.

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: II
UN Number: UN3089

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Proper Shipping Name: RQ Metal powders, flammable, n.o.s. (nickel powder)
DOT Reportable Quantities: 100 Lbs (45.4 kg)

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.