

LITHIUM

SAFETY DATA SHEET

DATE OF LAST REVISION: 06/29/15

Section 1: Identification

Product Name: Lithium

CAS Number: 7439-93-2 / **EC Number:** 231-102-5

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:

H260: In contact with water releases flammable gases which may ignite spontaneously

H314: Causes severe skin burns and eye damage.

Precautionary Statements:

P231+P232: Handle under inert gas. Protect from moisture

P261: Avoid breathing dust/fume/vapor

P370 + P378: In case of fire; Use special powder for metal fires for extinction.

P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing

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HMIS Health Ratings (0-4):

Health: 3
Flammability: 3
Physical: 3

Section 3: Composition/Information on Ingredients

Chemical characterization: Alkali Metal

Additional Names: None

CAS# Description: 7439-93-2

Percentage: 100 wt%

EC number: 231-102-5

Section 4: FIRST AID MEASURES

General Treatment: Seek medical attention if symptoms persist.

Special Treatment: None

Important Symptoms: Causes severe skin burns.
Causes severe eye damage.

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 CO₂, sand, extinguishing powder

Flammability: Highly Flammable

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 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: N/A

Threshold Limit Value: N/A

Special Equipment: None

Respiratory Protection: Use a respirator with type P100 (USA) or P3 (EN143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards.

Protective Gloves: Nitrile rubber, NBR 0.11 mm thick

Eye Protection: Safety glasses or goggles, Full face protection

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

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Form: Granules, Pellets, Sputtering target, Custom parts

Color: Grey

Odor: Odorless

Water Solubility: Reacts violently

Boiling Point: 1342°C

Melting Point: 180.5°C

Flash Point: N/A

Autoignition Temperature: N/A

Density: 0.53 g/cc

Molecular Weight: 6.941 g/mol

Section 10: STABILITY AND REACTIVITY

Reactivity: Reacts with water, acids, oxidizing agents

Chemical Stability: Stable under recommended storage conditions

Incompatible Conditions: Water/moisture

Hazardous Decomposition Products: Lithium oxide

Note: In contact with water releases flammable gases which may ignite spontaneously.

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Section 11: TOXICOLOGICAL INFORMATION

Potential Health Effects:

Eyes: Causes serious eye damage

Skin: Causes severe skin burns

Ingestion: Strong corrosive effect on mouth and throat to the danger of perforation of esophagus and stomach.

Inhalation: May cause irritation

Chronic: N/A

Signs & Symptoms: N/A

Aggravated Medical Conditions: N/A

Median Lethal Dose: N/A

Carcinogen: N/A

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 for transportation



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Hazard Class: 4.3 Substances which, in contact with water, emit flammable gases.
Packing Group: UN1415
UN Number: I
Proper Shipping Name: Lithium

Notes: There are special transportation regulations regarding this material

Section 15: REGULATORY INFORMATION

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

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.