SECTION 1. IDENTIFICATION

Product Identifier: Lithium Silicon Alloy

Product Code: LI-SI-01-P

CAS Number: 68848-64-6

Relevant identified uses of the substance: Scientific research and development

Supplier details:

American Elements
10884 Weyburn Ave.
Los Angeles, CA 90024
Tel: +1 310-208-0551
Fax: +1 310-208-0351
Emergency telephone number: +1 800-424-9300

SECTION 2. HAZARDS IDENTIFICATION

Signal Word: Danger

Hazard Statements:
H260: In contact with water releases flammable gases which may ignite spontaneously
H228: Flammable solid
H314: Causes severe skin burns and eye damage

Precautionary Statements:
P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking
P231+P232: Handle under inert gas. Protect from moisture
P240: Ground/bond container and receiving equipment
P241: Use explosion-proof electrical/ventilating/light/equipment
P260: Do not breathe dust/fume/gas/mist/vapours/spray
P280: Wear protective gloves/protective clothing/eye protection/face protection
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
P370+P378: In case of fire: Use CO2, sand, extinguishing powder for extinction
P405: Store locked up  
P501: Dispose of contents/container in accordance with local/regional/national/international regulations  
HMIS Health Ratings (0-4):  
  Health: 3  
  Flammability: 3  
  Physical: 3

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Lithium (Li):  
CAS #: 7439-93-2  
Silicon (Si):  
CAS #: 7440-21-3

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  
Inhalation:  
Remove victim to fresh air. Supply oxygen if breathing is difficult.  
Ingestion:  
Give one to two glasses of water and induce vomiting. Never induce vomiting or give anything by mouth to an unconscious person.  
Skin:  
Immediately remove any clothing soiled by the product. Wash affected area with mild soap and water. Remove any contaminated clothing.  
Eyes:  
Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

SECTION 5. FIREFIGHTING MEASURES

Flammability:  
Flammable  
Extinguishing Media:  
Do not use water for metal fires – use CO2, sand, extinguishing powder.  
Spec. 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

If Material Is Released/Spilled:
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 Conditions:
Handle under dry protective gas. Wash thoroughly after handling.
Storage Conditions:
Store in a cool dry place in a tightly sealed container. Store under dry inert gas. 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 CONTROLS/PERSONAL PROTECTION

Permissible Exposure Limits: 15 mg/m3 as Si total dust, long-term value 5 mg/m3 as Si respirable fraction, long-term value
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 0.11mm thick.
Penetration time of glove material: 480 minutes
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

Color N/A
Form: Powder, Granules, Pellets, Sputtering target, Custom parts
Odor: N/A
Water Solubility: Reacts violently releasing flammable gases
Boiling Point: N/A
Melting Point: 180.5-1414 °C
Flash Point: N/A
Autoignition Temperature: N/A
Density: N/A
Molecular weight: N/A
SECTION 10. STABILITY AND REACTIVITY

Stability:
Stable under recommended storage conditions
Reacts With:
Water, Acids, Oxidizing agents, Halogens, Interhalogens
Incompatible Conditions:
Water/moisture
Hazardous Decomposition Products:
Lithium oxide, Silicon oxide

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
Signs & Symptoms: N/A
Aggravated Medical Conditions: N/A
Median Lethal Dose: 3160 mg/kg for rat by mouth
Carcinogen: N/A

SECTION 12. ECOLOGICAL INFORMATION

Aquatic Toxicity: Low
Persistent 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.
Hazard Class: 4.3 Substances which, in contact with water, emit flammable gases
Packing Group: I
UN Number: UN1417
Proper Shipping Name: Lithium Silicon
SECTION 15. REGULATORY INFORMATION

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

16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2019 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.