SAFETY DATA SHEET

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SECTION 1. IDENTIFICATION

Product Name: Barium Silicide Sputtering Target

Product Number: All applicable American Elements product codes, e.g. BA-SID-02-ST , BA-SID-03-ST , BA-SID-04-ST , BA-SID-05-ST

CAS #: 1304-40-1

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

Statement of Hazard:
Dangerous when wet, Irritant, Reacts violently with water
Acute Health Hazard:
Irritant to eyes, skin, mucous membranes and respiratory system.
May be harmful by ingestion, skin absorption and inhalation.
Chronic Health Hazard:
Not Available
To the best of our knowledge, the toxicological properties of this chemical have not been thoroughly investigated. Use appropriate procedures and precautions to prevent or minimize exposure.
HMIS Rating:
H: 1
F: 1
P: 2
NFPA Rating:
H: 1
F: 1
R: 2
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):
Acute toxicity, dermal (Category 4), H312

Acute toxicity, inhalation (Category 4), H332
Acute toxicity, oral (Category 4), H302
Serious eye damage/eye irritation (Category 2A), H319
Skin corrosion/irritation (Category 2), H315
Substances and mixtures which, in contact with water, emit flammable gases (Category 1), H260
Pictogram:



Signal Word: Danger
Hazard Statement(s):
H260 In contact with water releases flammable gases which may ignite spontaneously.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
Precautionary Statement(s):
P223 Keep away from any possible contact with water, because of violent reaction and possible flash fire.
P231+P232 Handle under inert gas. Protect from moisture.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312 IF SWALLOWED: call a POISON CENTER or doctor/physician
IF you feel unwell.
P302+P352 IF ON SKIN: wash with plenty of soap and water.
P304+P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313 IF SKIN irritation occurs: Get medical advice/attention.
P402+P404 Store in a dry place. Store in a closed container.
Supplemental Statement(s):
EUH014 Reacts violently with water

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name: Barium silicide
Cas no.: 1304-40-1
EINECS Number: 234-547-3
Molecular Formula: $BaSi_2$

SECTION 4. FIRST AID MEASURES

Eye Contact:
Flush eyes with large amounts of water for fifteen minutes. Separate eyelids with fingers. If irritation persists, seek medical attention.
Skin Contact:
Wash skin with soap and water. If irritation persists, seek medical attention.
Ingestion:

Do not induce vomiting. Seek medical attention.
Inhalation:
Move to a fresh air environment. Contact a physician if breathing becomes difficult.

SECTION 5. FIREFIGHTING MEASURES

Flash Point (ºC): Not Available
Explosion Limits: Not Available
Auto Ignition Temperature (ºC): Not Available
Extinguishing Media:
Carbon dioxide, dry chemical powder or alcohol-resistant foam. Do not use water spray.
Protective Equipment:
Wear self-contained respirator and fully protective impervious suit.
Specific Hazards:
May emit hazardous fumes under fire conditions. Reacts violently with water.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Protection:
Wear a self-contained breathing apparatus, rubber boots and gloves, and disposable coveralls. Dispose of coveralls after use. Remove from ignition sources if safe to do so. Follow emergency response plan and contact proper authorities if needed.
Keep unprotected persons away.
Environmental Protection:
Keep spills out of sewers and bodies of water. Dike and contain the spill with inert material. Absorb on sand, vermiculite or diatomite. Transfer material to a container for disposal or recovery. Ventilate area and wash spill site after material pickup is complete.

SECTION 7. HANDLING AND STORAGE

Handling and Storage:
Avoid breathing dust, vapor, mist or gas. Avoid contact with skin and eyes. Avoid prolonged or repeated exposure. Use only in a chemical fume hood. Open and handle container with care. Keep ignition sources away.
Store in a tightly closed container in a dry, well-ventilated place. Store
under inert gas. Store under nitrogen.
Sensitivities: Air, Moisture
Storage Temperature (ºC): 15 to 30

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:
Use product in a well ventilated area or under a fume hood. Use proper lab equipment while handling this product. Keep away from incompatible materials for possible risk of hazardous reaction.
Eye Protection:
Wear appropriate protective eyeglass or chemical safety goggles. Make sure that there is an eyewash station in your vicinity.
Skin Protection:

Wear impervious gloves and protective clothing.
Respiratory Protection:
Use a NIOSH approved respirator when exposure limits are exceeded or if irritation or other symptoms are experienced.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Powder
Odor: Not Available
Odor Threshold: Not Available
Flash Point (ºC): Not Available
Auto Ignition Temperature (ºC): Not Available
Melting Point (ºC): Not Available
Boiling Point (ºC): Not Available
Evaporation Rate: Not Available
pH Value: Not Available
Density (g/cm^3): Not Available
Refractive Index (n^{20}D): Not Available
Viscosity: Not Available
Solubility in Water: Not Available
Solubility in Other: Not Available
Vapor Pressure (mmHg): Not Available
Vapor Density (Air=1): Not Available

SECTION 10. STABILITY AND REACTIVITY

Stability:
Stable under normal temperatures and pressures.
Incompatibility:
Strong oxidizing agents, water, alcohol, acids, bases
Reactivity:
Product may react with incompatible materials to release other hazardous substances.
Conditions to Avoid:
Heat, flame, sparks, other ignition sources.
Hazardous Decomposition Products:
Barium oxides, Silicon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

RTECS Reference: Not Available
Target Organs: Not Available
Toxicity Data: Not Available
Carcinogenicity: National Toxicology Program (NTP) listed: Not Available
International Agency for Research on Cancer (IARC) listed: Not Available
Potential Symptoms: Not Available

SECTION 12. ECOLOGICAL INFORMATION

Toxicity: Not Available

SECTION 13. DISPOSAL CONSIDERATIONS

Contact a licensed professional waste disposal service. Dispose in a manner consistent with federal, state and local environmental regulations.

SECTION 14. TRANSPORT INFORMATION

DOT Shipping Name: Water-Reactive Solid, N.O.S.
DOT UN Number: UN2813
DOT Hazard Class: Class 4.3
DOT Packing Group: PGI
IMDG Shipping Name: Water-Reactive Solid, N.O.S.
IMDG UN Number: UN2813
IMDG Hazard Class: Class 4.3
IMDG Packing Group: PGI
Marine Pollutant: No
IATA Shipping Name: Water-Reactive Solid, N.O.S.
IATA UN Number: UN2813
IATA Hazard Class: Class 4.3
IATA Packing Group: PGI

SECTION 15. REGULATORY INFORMATION

United States
Toxic Substance Control Act (TSCA) listed:
Yes
Superfund Amendments and Reauthorization Act (SARA 302) listed:
No
Superfund Amendments and Reauthorization Act (SARA 311/312) listed:
No
Superfund Amendments and Reauthorization Act (SARA 313) listed:
No
European Union
European Inventory of Existing Chemical Substances (EINECS): 234-547-3
Canada
Canadian Domestic Substances List (DSL) listed:
No
Canadian Non-Domestic Substances List (NDSL) listed:
Yes

SECTION 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 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.