SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

Product Identifier: (5N) 99.999% Niobium Silicide Sputtering Target

Product Code: NB-SID2-05-ST

CAS Number: 12034-80-9

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

Classification of the substance or mixture:
Not a hazardous substance or mixture.

GHS Label elements, including precautionary statements:
Not a hazardous substance or mixture.
Hazards not otherwise classified (HNOC) or not covered by GHS - none

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances
Formula : NbSi2
Molecular Weight : 149.08 g/mol
CAS-No. : 12034-80-9

SECTION 4. FIRST AID MEASURES

General advice:
Move out of dangerous area.
If inhaled:
If breathed in, move person into fresh air. If not breathing, give artificial respiration.
In case of skin contact:
Wash off with soap and plenty of water.
In case of eye contact:
Flush eyes with water as a precaution.
If swallowed:
Never give anything by mouth to an unconscious person. Rinse mouth with water.
Most important symptoms and effects, both acute and delayed:
The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11
Indication of any immediate medical attention and special treatment needed:
no data available

SECTION 5. FIREFIGHTING MEASURES

Extinguishing media
Suitable extinguishing media:
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards arising from the substance or mixture:
silicon oxides, niobium oxides
Advice for firefighters:
Wear self contained breathing apparatus for fire fighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:
Avoid dust formation. Avoid breathing vapors, mist or gas.
For personal protection see section 8.
Environmental precautions:
Do not let product enter drains.
Methods and materials for containment and cleaning up:
Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:
Provide appropriate exhaust ventilation at places where dust is formed.Normal measures for preventive fire protection.
For precautions see section 2.2.
Conditions for safe storage, including any incompatibilities:
Keep container tightly closed in a dry and well-ventilated place.
Keep in a dry place
Specific end use(s):
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters
Components with workplace control parameters:
Contains no substances with occupational exposure limit values
Exposure controls
Appropriate engineering controls:
General industrial hygiene practice.
Personal protective equipment
Eye/face protection:
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin protection:
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Body Protection:
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory protection:
Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Control of environmental exposure:
Do not let product enter drains.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Form: Powder or solid in various forms
Odor no data available
Odor Threshold no data available
pH no data available
Melting point/freezing point: no data available
Initial boiling point and boiling range: no data available
Flash point no data available
Evaporation rate no data available
Flammability (solid, gas) no data available
Upper/lower flammability or explosive limits: no data available
Vapor pressure no data available
Vapor density no data available
Relative density no data available
Water solubility no data available
Partition coefficient: n-octanol/water: no data available
Auto-ignition temperature: no data available
Decomposition temperature: no data available
Viscosity no data available
Explosive properties no data available
Oxidizing properties no data available
SECTION 10. STABILITY AND REACTIVITY

Reactivity:
no data available

Chemical stability:
Stable under recommended storage conditions.

Possibility of hazardous reactions:
no data available

Conditions to avoid:
no data available

Incompatible materials:
Strong oxidizing agents

Hazardous decomposition products:
Other decomposition products - no data available

In the event of fire: see section 5

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity:
no data available

Inhalation: no data available
Dermal: no data available

Skin corrosion/irritation:
no data available

Serious eye damage/eye irritation:
no data available

Respiratory or skin sensitization:
no data available

Germ cell mutagenicity:
no data available

Carcinogenicity:
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity:
no data available

Specific target organ toxicity - single exposure
no data available

Specific target organ toxicity - repeated exposure
no data available

Aspiration hazard:
no data available

Additional Information
RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
SECTION 12. ECOLOGICAL INFORMATION

Toxicity:
no data available
Persistence and degradability:
no data available
Bioaccumulative potential:
no data available
Mobility in soil:
no data available
Results of PBT and vPvB assessment:
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods
Product:
Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging:
Dispose of as unused product

SECTION 14. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods
IMDG
Not dangerous goods
IATA
Not dangerous goods
SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
SARA 311/312 Hazards
Chronic Health Hazard
Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.
Pennsylvania Right To Know Components
Niobium disilicide
CAS-No. 12034-80-9
New Jersey Right To Know Components
Niobium disilicide
CAS-No. 12034-80-9
California Prop. 65 Components:
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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.