

Niobium Silicide NbSi₂		Pricing >
Niobium Silicide Sputtering Target		Pricing >
Linear Formula	NbSi ₂	
Pubchem CID	6336884	
MDL Number	MFCD00151537	
EC No.	234-812-3	
IUPAC Name	bis(λ ²)-silanylidene)niobium	
Beilstein/Reaxys No.	N/A	
SMILES	[Si]=[Nb]=[Si]	
Inchl Identifier	InChI=1S/Nb.2Si	
Inchl Key	GXAAOBARRLPQRY-UHFFFAOYSA-N	
Signal Word	N/A	
Hazard Statements	N/A	
Hazard Codes	N/A	
Risk Codes	N/A	
Safety Statements	N/A	
Transport Information	NONH for all modes of transport	

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SAFETY DATA SHEET

Date Accessed: 05/03/2024

Date Revised: 01/15/2022

SECTION 1. IDENTIFICATION

Product Identifiers: All applicable American Elements product codes for CAS #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:
Domestic, North America +1 800-424-9300
International +1 703-527-3887

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 work-place., 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 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
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.
Stomach - Irregularities - Based on Human Evidence
Stomach - Irregularities - Based on Human Evidence

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

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