

<a href="#">Tungsten Disilicide</a>		<a href="#">Pricing &gt;</a>
<a href="#">Tungsten Disilicide Sputtering Target</a>		<a href="#">Pricing &gt;</a>
<b>Linear Formula</b>	WSi <sub>2</sub>	
<b>Pubchem CID</b>	16212546	
<b>MDL Number</b>	MFCD00049704	
<b>EC No.</b>	234-909-0	
<b>IUPAC Name</b>	bisλ <sup>3</sup> - (silanylidyne)tungsten	
<b>Beilstein/Reaxys No.</b>	N/A	
<b>SMILES</b>	[Si]#[W]#[Si]	
<b>InChI Identifier</b>	InChI=1S/2Si.W	
<b>InChI Key</b>	WQJQOUPTWCFRMM-UHFFFAOYSA-N	
<b>Signal Word</b>	N/A	
<b>Hazard Statements</b>	N/A	
<b>Hazard Codes</b>	N/A	
<b>Risk Codes</b>	N/A	
<b>Safety Statements</b>	N/A	
<b>Transport Information</b>	N/A	

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## SAFETY DATA SHEET

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### SECTION 1. IDENTIFICATION

**Product Identifiers:** All applicable American Elements product codes for CAS #12039-88-2

**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

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## **SECTION 2. HAZARDS IDENTIFICATION**

2.1 Classification of the substance or mixture

Not a hazardous substance or mixture.

2.2 GHS Label elements, including precautionary statements

Not a hazardous substance or mixture.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

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## **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

3.1 Substances

Formula : Si<sub>2</sub>W

Molecular weight : 240.01 g/mol

CAS-No. : 12039-88-2

EC-No. : 234-909-0

Hazardous components

Component Classification Concentration

Tungsten disilicide

<= 100 %

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## **SECTION 4. FIRST AID MEASURES**

4.1 Description of first aid measures

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.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

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## **SECTION 5. FIREFIGHTING MEASURES**

### **5.1 Extinguishing media**

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### **5.2 Special hazards arising from the substance or mixture**

Tungsten oxide, silicon oxides

### **5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

### **5.4 Further information**

No data available

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Avoid dust formation. Avoid breathing Vapors, mist or gas.

For personal protection see section 8.

### **6.2 Environmental precautions**

Do not let product enter drains.

### **6.3 Methods and materials for containment and cleaning up**

Sweep up and shovel. Keep in suitable, closed containers for disposal.

### **6.4 Reference to other sections**

For disposal see section 13.

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## **SECTION 7. HANDLING AND STORAGE**

### **7.1 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.

### **7.2 Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a dry and well-ventilated place.

### **7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **8.1 Control parameters**

Components with workplace control parameters

Component CAS-No. Value Control  
parameters

Basis

Tungsten disilicide 12039-88-2 TWA 5.000000

mg/m<sup>3</sup>

USA. ACGIH Threshold Limit Values  
(TLV)

Remarks Lower Respiratory Tract irritation  
varies

STEL 10.000000

mg/m<sup>3</sup>

USA. ACGIH Threshold Limit Values  
(TLV)

Lower Respiratory Tract irritation  
varies

TWA 5.000000

mg/m<sup>3</sup>

USA. NIOSH Recommended  
Exposure Limits

ST 10.000000

mg/m<sup>3</sup>

USA. NIOSH Recommended  
Exposure Limits

### **8.2 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.

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## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

### 9.1 Information on basic physical and chemical properties

- a) Appearance Form: solid
  - b) Odor No data available
  - c) Odor Threshold No data available
  - d) pH No data available
  - e) Melting point/freezing point  
No data available
  - f) Initial boiling point and boiling range  
No data available
  - g) Flash point No data available
  - h) Evaporation rate No data available
  - i) Flammability (solid, gas) No data available
  - j) Upper/lower flammability or explosive limits  
No data available
  - k) Vapor pressure No data available
  - l) Vapor density No data available
  - m) Relative density No data available
  - n) Water solubility No data available
  - o) Partition coefficient: octanol/water  
No data available
  - p) Auto-ignition temperature  
No data available
  - q) Decomposition temperature  
No data available
  - r) Viscosity No data available
  - s) Explosive properties No data available
  - t) Oxidizing properties No data available
- ### 9.2 Other safety information
- No data available

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## **SECTION 10. STABILITY AND REACTIVITY**

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

No data available

### 10.5 Incompatible materials

acids

### 10.6 Hazardous decomposition products

Other decomposition products - No data available

In the event of fire: see section 5

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

### 11.1 Information on toxicological effects

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 sensitisation

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

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

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## **SECTION 12. ECOLOGICAL INFORMATION**

12.1 Toxicity  
No data available  
12.2 Persistence and degradability  
No data available  
12.3 Bioaccumulative potential  
No data available  
12.4 Mobility in soil  
No data available  
12.5 Results of PBT and vPvB assessment  
PBT/vPvB assessment not available as chemical  
safety assessment not required/not conducted  
12.6 Other adverse effects  
No data available

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

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

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## **SECTION 14. TRANSPORT INFORMATION**

DOT (US)  
Not dangerous goods  
IMDG  
Not dangerous goods  
IATA  
Not dangerous goods

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## **SECTION 15. REGULATORY INFORMATION**

SARA 302 Components  
No chemicals in this material are subject to the

reporting requirements of SARA Title III, Section 302.  
SARA 313 Components  
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.  
Massachusetts Right To Know Components  
No components are subject to the Massachusetts  
Right to Know Act.  
Pennsylvania Right To Know Components  
Tungsten disilicide  
CAS-No.  
12039-88-2  
Revision Date  
New Jersey Right To Know Components  
Tungsten disilicide  
CAS-No.  
12039-88-2  
Revision Date  
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.

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## 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  
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