


	<a href="#">Vanadium Silicide</a>	<a href="#">Pricing &gt;</a>
	<a href="#">Vanadium Silicide Sputtering Target</a>	<a href="#">Pricing &gt;</a>
<b>Linear Formula</b>	VSi <sub>2</sub>	
<b>Pubchem CID</b>	6336891	
<b>MDL Number</b>	MFCD00049696	
<b>EC No.</b>	234-908-5	
<b>IUPAC Name</b>	bis( $\lambda^2$ -silanylidene)vanadium	
<b>Beilstein/Reaxys No.</b>	N/A	
<b>SMILES</b>	[Si]=[V]=[Si]	
<b>Inchl Identifier</b>	InChI=1S/2Si.V	
<b>Inchl Key</b>	LUWOVYQXZRKECH-UHFFFAOYSA-N	
<b>Signal Word</b>	Warning	
<b>Hazard Statements</b>	H302-H315-H319-H335	
<b>Hazard Codes</b>	Xi	
<b>Precautionary Statements</b>	P280-P304+P340-P305+P351+P338-P405-P501	
<b>Risk Codes</b>	N/A	
<b>Safety Statements</b>	N/A	
<b>Transport Information</b>	UN 3285 6.1/PG III	
<b>GHS Pictograms</b>	<a href="#">GHS07 Exclamation Point</a> 	

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## SAFETY DATA SHEET

Date Accessed: 09/21/2024

Date Revised: 01/15/2022

### SECTION 1. IDENTIFICATION

**Product Identifiers:** All applicable American Elements product codes for CAS #12039-87-1

**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:  
Domestic, North America +1 800-424-9300  
International +1 703-527-3887

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## SECTION 2. HAZARDS IDENTIFICATION

Signal Word: Warning



Hazard Statements: H315 Causes skin irritation  
H319 Causes serious eye irritation  
H302: Harmful if swallowed  
H335: May cause respiratory irritation  
Precautionary Statements: P261 Avoid breathing dust/fume/vapor  
P280: Wear protective gloves/protective clothing/eye protection/face protection  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing  
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
P405: Store locked up  
P501: Dispose of contents/container in accordance with local/regional/national/international regulations  
HMIS Health Ratings (0-4):  
Health: 2  
Flammability: 1  
Physical: 1

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## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Family: Ceramic  
Additional Names: None  
Vanadium silicide (VSi<sub>2</sub>):  
Percentage: 100 wt%  
CAS #: 12039-87-1  
EC #: 234-908-5

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

General Treatment: Seek medical attention if symptoms persist.

Special Treatment: None

Important Symptoms: None

Inhalation: Remove victim to fresh air. Supply oxygen if breathing is difficult.

Ingestion: Seek medical attention.

Skin: 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

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## **SECTION 5. FIREFIGHTING MEASURES**

Flammability: Non-flammable, except as powder

Extinguishing Media: Use CO<sub>2</sub>, extinguishing powder, water spray, alcohol resistant foam.

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.

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## **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.

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

Handling Conditions: Wash thoroughly after handling.

Storage Conditions: Store in a cool dry place in a tightly sealed container. 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.

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

Permissible Exposure Limits: N/A  
Threshold Limit Value: N/A  
Special Equipment: None  
Respiratory Protection: Dust Respirator  
Protective Gloves: Rubber gloves  
Eye Protection: Safety glasses or goggles  
Body Protection: Protective work clothing. Wear close-toed shoes and long sleeves/pants.

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

Color Grey  
Form: Crystalline  
Odor: Odorless  
Water Solubility: Insoluble  
Boiling Point: N/A  
Melting Point: N/A  
Flash Point: N/A  
Autoignition Temperature: N/A  
Density: 4.42 g/cc  
Molecular weight: 107.11 g/mol

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

Stability: Stable under recommended storage conditions  
Reacts With: Oxidizing agents  
Incompatible Conditions: None  
Hazardous Decomposition Products: Metal oxide fume

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

Potential Health Effects:  
Eyes: Causes serious eye damage  
Skin: Causes skin irritation  
Ingestion: May cause irritation  
Inhalation: May cause irritation  
Chronic: Inorganic silicon compounds may be acute inhalation irritants. Prolonged inhalation may cause

pulmonary fibrosis known as silicosis.  
Vanadium compounds act chiefly as an irritant to the eyes and respiratory tract. Exposure may cause conjunctivitis, rhinitis and reversible irritation of the respiratory tract. More severe cases may cause bronchitis, bronchospasms and asthma like disease. May cause polycythemia, red blood cell destruction and anemia, albuminuria and hematuria, gastrointestinal disorders, nervous complaints and severe cough.  
Signs & Symptoms: N/A  
Aggravated Medical Conditions: N/A  
Median Lethal Dose: N/A  
Carcinogen: N/A

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## **SECTION 12. ECOLOGICAL INFORMATION**

Aquatic Toxicity: Low  
Persistent Bioaccumulation Toxicity: No  
Very Persistent, Very Bioaccumulative: No  
Notes: N/A

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

Dispose of in accordance with local, state, national, and international regulations.

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## **SECTION 14. TRANSPORT INFORMATION**

Hazardous: Hazardous for transportation  
Hazard Class: 6.1 Toxic substances.  
Packing Group: III  
UN Number: UN3285  
Proper Shipping Name: Vanadium compound, n.o.s. (Vanadium silicide)

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## **SECTION 15. REGULATORY INFORMATION**

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

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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 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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