

<a href="#">Zinc Antimonide (ZnSb)</a>	<a href="#">Pricing &gt;</a>
<a href="#">Zinc Antimonide Concentrate</a>	<a href="#">Pricing &gt;</a>
<a href="#">Zinc Antimonide Granules</a>	<a href="#">Pricing &gt;</a>
<a href="#">Zinc Antimonide Powder</a>	<a href="#">Pricing &gt;</a>
<a href="#">Zinc Antimonide Shavings</a>	<a href="#">Pricing &gt;</a>
<a href="#">Zinc Antimonide Sputtering Target</a>	<a href="#">Pricing &gt;</a>

<b>Linear Formula</b>	ZnSb
<b>Pubchem CID</b>	6336886
<b>MDL Number</b>	N/A
<b>EC No.</b>	234-893-5
<b>IUPAC Name</b>	antimony; zinc
<b>Beilstein/Reaxys No.</b>	N/A
<b>SMILES</b>	[Sb].[Zn]
<b>Inchl Identifier</b>	InChI=1S/Sb.Zn
<b>Inchl Key</b>	CZJCMXPZSYNVLP-UHFFFAOYSA-N
<b>Signal Word</b>	Danger
<b>Hazard Statements</b>	H302 + H332-H311-H315-H319-H335-H411
<b>Hazard Codes</b>	N/A
<b>Risk Codes</b>	N/A
<b>Safety Statements</b>	N/A
<b>Transport Information</b>	UN 1549 6.1 / PGIII

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## SAFETY DATA SHEET

Date Accessed: 04/17/2024

Date Revised: 01/15/2022

### SECTION 1. IDENTIFICATION

**Product Identifiers:** All applicable American

Elements product codes for CAS #12039-35-9

**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

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## SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 3), H301

Acute toxicity, Inhalation (Category 4), H332

Acute toxicity, Dermal (Category 3), H311

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word Danger

Hazard statement(s)

H301 + H311 Toxic if swallowed or in contact with skin

H332 Harmful if inhaled.

Precautionary statement(s)

P261 Avoid breathing dust/ fume/ gas/ mist/ Vapors/ spray.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ protective clothing.

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

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.

P312 Call a POISON CENTER or doctor/ physician if you feel unwell.

P322 Specific measures (see supplemental first aid instructions on this label).  
P330 Rinse mouth.  
P361 Remove/Take off immediately all contaminated clothing.  
P363 Wash contaminated clothing before reuse.  
P405 Store locked up.  
P501 Dispose of contents/ container to an approved waste disposal plant.  
HMIS Rating  
Health hazard: 2  
Chronic Health Hazard: \*  
Flammability: 0  
Physical Hazard 0  
NFPA Rating  
Health hazard: 2  
Fire Hazard: 0  
Reactivity Hazard: 0  
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  
Synonyms : Zinc antimonide  
Formula : ZnSb  
Molecular weight : 184.10 g/mol  
CAS-No. : 12039-35-9  
EC-No. : 234-893-5  
Index-No. : 051-003-00-9  
Hazardous components  
Component: Zinc monoantimonide  
Classification: Acute Tox. 3; Acute Tox. 4; Acute Tox. 3; Skin Irrit. 2; Eye Irrit. 2A; STOT SE 3; Aquatic Acute 2; Aquatic Chronic 2; H301 + H311, H315, H319, H332, H335, H411  
Concentration: <= 100 %

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

4.1 Description of first aid measures  
General advice  
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.  
If inhaled  
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

Zinc/zinc oxides, Antimony oxide

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. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid dust formation.

Avoid breathing Vapors, mist or gas. Ensure adequate ventilation.

Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust.  
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  
Avoid contact with skin and eyes. Avoid formation of dust and aerosols.  
Provide appropriate exhaust ventilation at places where dust is formed.  
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: Zinc monoantimonide  
CAS-No.: 12039-35-9  
Value / Control parameters / Basis  
TWA / 0.500000 mg/m<sup>3</sup> / USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants  
TWA / 0.500000 mg/m<sup>3</sup> / USA. ACGIH Threshold Limit Values (TLV)  
Remarks:  
Upper Respiratory Tract irritation, Skin irritation  
TWA / 0.500000 mg/m<sup>3</sup> / USA. NIOSH Recommended Exposure Limits  
8.2 Exposure controls  
Appropriate engineering controls  
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.  
Personal protective equipment  
Eye/face protection  
Face shield and safety glasses 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

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Control of environmental exposure

Prevent further leakage or spillage

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

- a) Appearance Form: crystalline powder or solid  
Colour: silver, white
  - b) Odor: No data available
  - c) Odor Threshold: No data available
  - d) pH: No data available
  - e) Melting point/freezing point: 570 °C (1,058 °F)
  - 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: 6.33 g/cm<sup>3</sup>
  - n) Water solubility: soluble
  - 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

Strong 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

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

No data available  
Aspiration hazard  
No data available  
Additional Information  
RTECS: Not available  
dry throat, Cough, Lung irritation, Difficulty in breathing, Skin irritation, Eye irritation, May cause headache and dizziness., Headache, May cause nausea, abdominal spasms and irritation of the mucous membranes., Fever, cramps, Vomiting, Diarrhoea, Anorexia., metallic taste, Salivation, Dizziness, moderate to severe pain, sleep disturbances  
Stomach - Irregularities - Based on Human Evidence

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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  
Toxic to aquatic life with long lasting effects.  
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
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. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.  
Contaminated packaging  
Dispose of as unused product.

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## **SECTION 14. TRANSPORT INFORMATION**

DOT (US)

UN number: 1549 Class: 6.1 Packing group: III

Proper shipping name: Antimony compounds,  
inorganic, solid, n.o.s. (Zinc monoantimonide)

Reportable Quantity (RQ):

Poison Inhalation Hazard: No

IMDG

UN number: 1549 Class: 6.1 Packing group: III EMS-

No: F-A, S-A

Proper shipping name: ANTIMONY COMPOUND,  
INORGANIC, SOLID, N.O.S. (Zinc monoantimonide)

Marine pollutant:yes

IATA

UN number: 1549 Class: 6.1 Packing group: III

Proper shipping name: Antimony compound,  
inorganic, solid, n.o.s. (Zinc monoantimonide)

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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

The following components are subject to reporting  
levels established by SARA Title III, Section 313:

Zinc monoantimonide

CAS-No.

12039-35-9

Revision Date

2007-07-01

SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts  
Right to Know Act.

Pennsylvania Right To Know Components

Zinc monoantimonide

CAS-No.

12039-35-9

Revision Date

2007-07-01

New Jersey Right To Know Components

Zinc monoantimonide

CAS-No.

12039-35-9

Revision Date

2007-07-01

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 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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