

SAFETY DATA SHEET

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SECTION 1. IDENTIFICATION

Product Name: Cadmium Antimonide Sputtering Target

Product Number: All applicable American Elements product codes, e.g. CD-SB-05-I , CD-SB-05-L , CD-SB-05-P , CD-SB-05-ST , CD-SB-05-WF

CAS #: 12014-29-8

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 SUBSTANCE OR MIXTURE



Pictogram

Signal Word Warning

Hazard Statements

H302+H312+H332 Harmful if swallowed, in contact with skin, or if inhaled.

Precautionary Phrases

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

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell.

HMIS CLASSIFICATION:

Health: 2 Fire: 0 Reactivity Hazard: 1

NFPA RATING:

Health: 2 Flammability: 0 Reactivity Hazard: 1

EYE CONTACT: Causes irritation of the eyes.

SKIN CONTACT: Harmful in contact with skin.

INHALATION: Harmful if inhaled.
INGESTION: Harmful if swallowed.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula: CdSb
Molecular Weight: 234.16
CHEMICAL NAME CAS# %
Cadmium Antimonide 12050-27-0 100

SECTION 4. FIRST AID MEASURES

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

SKIN EXPOSURE: Wash affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

INHALATION: Remove to fresh air and keep at rest. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases, seek immediate medical assistance.

INGESTION: Seek medical attention immediately.

SECTION 5. FIREFIGHTING MEASURES

FLASH POINT: Product is not flammable.

Autoignition: Not available

EXPLOSION LIMITS: This product does not present an explosion hazard.

EXTINGUISHING MEDIUM: Use fire fighting measures that suit the surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Cadmium oxide and antimony oxide.

SECTION 6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear all appropriate equipment when using this material. Ensure adequate ventilation. Keep unprotected persons away.

ENVIRONMENTAL PRECAUTIONS: Prevent spillage from entering drains or allowing to be released into the environment.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Pick up and arrange disposal without creating dust. Sweep up and keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wear appropriate personal protective equipment. Use with adequate ventilation. Avoid

contact with skin and eyes. Avoid formation of dust.

CONDITIONS FOR SAFE STORAGE: Store in cool, dry, and well-ventilated area. Store away from oxidizing agents.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE CONTROLS:

Component Exposure Limits Basis Entity

Cadmium Antimonide 0.5 mg/m³ TLV ACGIH

0.5 mg/m³ PEL OSHA

0.002 mg/m³ TLV ACGIH

0.002 mg/m³ PEL OSHA

PEL: Permissible Exposure Limit TLV: Threshold Limit Value over 8 hours of work.

EYE PROTECTION: Wear chemical safety glasses or goggles and face shield.

SKIN PROTECTION: Wear nitrile or rubber gloves, apron, or lab coat.

VENTILATION: Provide local exhaust, preferably mechanical.

RESPIRATOR: Use an approved respirator.

ADDITIONAL PROTECTION: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: Black solid

ODOR: None

MOLECULAR WEIGHT: 234.16

BOILING POINT: No data available

MELTING POINT: Not available

SPECIFIC GRAVITY: 6.92 gm/ml

VAPOR DENSITY: No data available

SOLUBILITY: Insoluble

SECTION 10. STABILITY AND REACTIVITY

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: None known

INCOMPATIBILITY: Strong oxidizing agents

DECOMPOSITION PRODUCTS: Cadmium oxide and antimony oxide

SECTION 11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY: Not available

CARCINOGENIC EFFECTS: Carcinogenic to humans.

MUTAGENIC EFFECTS: Not available

TETRATOGENIC EFFECTS: Not available

RTECS: Not available

Antimony compounds may cause metallic taste, gastrointestinal disturbances, vomiting, diarrhea, dizziness, and systemic poisoning.

Chronic exposure may cause liver and kidney damage. Dermatitis and eczematous skin eruptions may result from skin contact.

Cadmium compounds are highly toxic and experimental carcinogens. Exposure affects the respiratory tract, kidneys, and liver.

Ingestion may cause nausea, salivation, vomiting, and diarrhea. Ingestion or inhalation of cadmium compounds may be fatal.

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12. ECOLOGICAL INFORMATION

Very toxic for aquatic organisms. May cause long lasting harmful effects to aquatic life. Also poisonous for fish and plankton in water

bodies. Danger to drinking water if even extremely small quantities leak into the ground.

SECTION 13. DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.

SECTION 14. TRANSPORT INFORMATION

UN2570 UN2570

Cadmium compounds, n.o.s. Cadmium compound, n.o.s.

(cadmium antimonide) (cadmium antimonide)

Class 6.1 Class 6.1

PG III PG III

Marine Pollutant: No

SECTION 15. REGULATORY INFORMATION

SARA (TITLE 313): Cadmium antimonide

CALIFORNIA PROP. 65: Cadmium antimonide

SECTION 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.