

GERMANIUM SELENIDE
SAFETY DATA SHEET
DATE OF LAST REVISION: 03/20/15

Section 1: Identification

Product Name: Germanium Selenide

Company: Angstrom Sciences, Inc.
40 South Linden Street
Duquesne, PA 15110

For more information call: 412-469-8466
(Monday - Friday 9:00 AM -5:00 PM EST)

Section 2: HAZARD IDENTIFICATION

Signal Word: Danger



Hazard Statements:

H301: Toxic if swallowed
H331: Toxic if inhaled
H315: Causes skin irritation
H360: May damage fertility or unborn child
H400: Very toxic to aquatic life

Precautionary Statements:

P261: Avoid breathing dust/fume/vapor
P301 + P304 + P313: If swallowed or inhaled: Seek medical advice
P273: Avoid release to environment
P501: Dispose of contents according to local/national/international regulation

HMIS Health Ratings (0-4):

Health: 2
Flammability: 0
Physical: 1

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Section 3: Composition/Information on Ingredients

Chemical characterization: Semimetal

Additional Names: Germanium monoselenide, Germanium (II) selenide

CAS# Description: 12065-10-0 & 12626-64-1 & 51682-05-4

Percentage: 100 wt%

EC number: 235-061-14

Section 4: FIRST AID MEASURES

General Treatment: Seek medical attention if symptoms persist.

Special Treatment: None

Important Symptoms: None

Eye Contact: Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

Skin Contact: Wash affected area with mild soap and water. Remove any contaminated clothing

Inhalation: Remove to fresh air. If required, give artificial respiration. Seek medical advice.

Ingestion: Give one to two glasses of water and induce vomiting. Never induce vomiting or give anything by mouth to an unconscious person.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing Media: No special restrictions - use suitable extinguishing agent for surrounding material and type of fire.

Flammability: Non-Flammable

Special 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.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: 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.

Section 7: HANDLING AND STORAGE

Handling Precautions for safe handling: Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities 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 CONTROL/PERSONAL PROTECTION

Permissible Exposure Limits: 0.2 mg/m³ as Se, long-term value
Threshold Limit Value: 0.2 mg/m³ as se, long-term value
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.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Form: Powder, Granules, Pellets, Sputtering target, Custom parts
Color: Dark grey to black
Odor: Odorless
Water Solubility: Insoluble
Boiling Point: N/A
Melting Point: 670° C
Flash Point: N/A
Autoignition Temperature: N/A
Density: 5.6 g/cc
Molecular Weight: 151.60 g/mol

Section 10: STABILITY AND REACTIVITY

Reactivity: Oxidizing agents
Chemical Stability: Stable under recommended storage conditions
Incompatible Conditions: None
Hazardous Decomposition Products: Metal oxide fume, Hydrogen selenide

Section 11: TOXICOLOGICAL INFORMATION

Potential Health Effects:

Eyes: Harmful

Skin: May cause irritation

Ingestion: Toxic

Inhalation: Toxic

Chronic: N/A

Signs & Symptoms: N/A

Aggravated Medical Conditions: N/A

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Median Lethal Dose: N/A
Carcinogen: N/A

Section 12: ECOLOGICAL INFORMATION

Aquatic Toxicity: High

Persistence Bioaccumulation Toxicity: No

Very Persistent, Very Bioaccumulative: No

Notes: Do not allow spillage to reach drinking water

Section 13: DISPOSAL CONSIDERATIONS

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

Section 14: TRANSPORT INFORMATION

Hazardous: Hazardous for transportation



Hazard Class: 6.1 Toxic substances

Packing Group: III

UN Number: UN3283

Proper Shipping Name: Selenide compound, solid, n.o.s. (Germanium selenide)

Section 15: REGULATORY INFORMATION

Sec 302 Extremely Hazardous: No

Sec 304 Reportable Quantities: N/A

Sec 313 Toxic Chemicals: Yes

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Section 16: OTHER INFORMATION

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.