

# SAFETY DATA SHEET

Date Printed: 05/11/2024

Date Revised: 01/15/2022

## SECTION 1. IDENTIFICATION

**Product Identifier:** (5N) 99.999% Nickel Arsenide(II) Sputtering Target

**Product Code:** NI-AS2-05-ST

**CAS Number:** 12068-61-0

**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

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin Sensitization

Category 1

Carcinogenicity

Category 1A

Specific target organ toxicity - (repeated exposure)

Category 1

Label Elements

Signal Word

Danger

Hazard Statements

May cause an allergic skin reaction

May cause cancer by inhalation

Causes damage to organs through prolonged or repeated exposure



Precautionary Statements

## Prevention

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Use personal protective equipment as required

Contaminated work clothing should not be allowed out of the workplace

Wear protective gloves

Do not breathe dust/fume/gas/mist/vapors/spray

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

## Response

IF exposed or concerned: Get medical attention/advice

## Skin

IF ON SKIN: Wash with plenty of soap and water

If skin irritation or rash occurs: Get medical advice/attention

Wash contaminated clothing before reuse

## Storage

Store locked up

## Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Very toxic to aquatic life with long lasting effects

WARNING. Cancer - <https://www.p65warnings.ca.gov/>.

---

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component: Nickel diarsenide

CAS-No: 12068-61-0

Weight %: <=100

---

## SECTION 4. FIRST AID MEASURES

### General Advice

If symptoms persist, call a physician.

### Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

### Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

### Inhalation

Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

### Ingestion

Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

### Most important symptoms and effects

May cause allergic skin reaction. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

### Notes to Physician

Treat symptomatically

---

## SECTION 5. FIREFIGHTING MEASURES

Unsuitable Extinguishing Media

No information available

Flash Point

No information available

Method -No information available

Autoignition Temperature

No information available

Explosion Limits

Upper

No data available

Lower

No data available

Sensitivity to Mechanical Impact

No information available

Sensitivity to Static Discharge

No information available

Specific Hazards Arising from the Chemical

Do not allow run-off from fire-fighting to enter drains or water courses.

Hazardous Combustion Products

None known.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health 3

Flammability 0

Instability 0

Physical Hazards -

---

## SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.

Environmental Precautions

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

Methods for Containment and Clean Up

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

---

## SECTION 7. HANDLING AND STORAGE

Handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation.

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place

---

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

### Engineering Measures

Ensure adequate ventilation, especially in confined areas

### Personal Protective Equipment

#### Eye/face Protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

#### Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

#### Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149.

Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

---

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

### Physical State

Solid Crystalline

### Appearance

Black

### Odor

Odorless

### Odor Threshold

No information available

### pH

No information available

### Melting Point/Range

No data available

### Boiling Point/Range

No information available

### Flash Point

No information available

### Evaporation Rate

Not applicable

### Flammability (solid, gas)

No information available

### Flammability or explosive limits

#### Upper

No data available

#### Lower

No data available

### Vapor Pressure

No information available

### Vapor Density

Not applicable

### Specific Gravity

No information available  
Solubility  
No information available  
Partition coefficient; n-octanol/water  
No data available  
Autoignition Temperature  
No information available  
Decomposition Temperature  
No information available  
Viscosity  
Not applicable  
Molecular Formula  
NiAs<sub>2</sub> + possible other phases

---

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

Reactive Hazard  
None known, based on information available  
Stability  
Stable under normal conditions.  
Conditions to Avoid  
Incompatible products.  
Incompatible Materials  
Strong oxidizing agents  
Hazardous Decomposition Products  
None under normal use conditions  
Hazardous Polymerization  
Hazardous polymerization does not occur.  
Hazardous Reactions  
None under normal processing.

---

## **SECTION 11. TOXICOLOGICAL INFORMATION**

Product Information  
Component Information  
Toxicologically Synergistic Products  
No information available  
Delayed and immediate effects as well as chronic effects from short and long-term exposure Irritation  
No information available  
Sensitization  
No information available  
Carcinogenicity  
The table below indicates whether each agency has listed any ingredient as a carcinogen.  
Mutagenic Effects  
No information available  
Reproductive Effects  
No information available.  
Developmental Effects  
No information available.  
Teratogenicity  
No information available.

STOT - single exposure  
None known  
STOT - repeated exposure  
None known  
Aspiration hazard  
No information available  
Symptoms / effects, both acute and delayed  
Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing  
Endocrine Disruptor Information  
No information available  
Other Adverse Effects  
The toxicological properties have not been fully investigated.

---

## **SECTION 12. ECOLOGICAL INFORMATION**

Ecotoxicity  
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.  
Persistence and Degradability  
Insoluble in water  
Bioaccumulation/ Accumulation  
No information available.  
Mobility  
Is not likely mobile in the environment due its low water solubility.

---

## **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste Disposal Methods  
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification

---

## **SECTION 14. TRANSPORT INFORMATION**

DOT  
UN-No  
UN3077  
Proper Shipping Name  
Environmentally hazardous substances, solid, n.o.s.  
Technical Name  
(Nickel arsenide)  
Hazard Class  
9  
Packing Group  
III  
TDG  
UN-No  
UN3077  
Proper Shipping Name

Environmentally hazardous substances, solid, n.o.s.  
Hazard Class  
9  
Packing Group  
III  
IATA  
UN-No  
UN3077  
Proper Shipping Name  
Environmentally hazardous substances, solid, n.o.s.  
Hazard Class  
9  
Packing Group  
III  
IMDG/IMO  
UN-No  
UN3077  
Proper Shipping Name  
Environmentally hazardous substances, solid, n.o.s.  
Hazard Class  
9  
Packing Group  
III

---

## SECTION 15. REGULATORY INFORMATION

U.S. Department of Transportation  
Reportable Quantity (RQ):  
N  
DOT Marine Pollutant  
N  
DOT Severe Marine Pollutant  
N  
U.S. Department of Homeland Security  
This product does not contain any DHS chemicals.  
Other International Regulations  
Mexico – Grade  
No information available

---

## 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.

---