

SAFETY DATA SHEET

Date Printed: 05/11/2024

Date Revised: 01/15/2022

SECTION 1. IDENTIFICATION

Product Identifier: (5N) 99.999% Nickel Arsenide(II) Wafer

Product Code: NI-AS2-05-WF

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
NiAs₂ + 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.
