

SAFETY DATA SHEET

Date Printed: 05/01/2024 Date Revised: 01/15/2022

SECTION 1. IDENTIFICATION

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

Product Code: NI-AS2-05-I

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. Eve 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 I ower 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

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 StandardEN166. 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 pН 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 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 ш ΙΑΤΑ UN-No UN3077 **Proper Shipping Name** Environmentally hazardous substances, solid, n.o.s. Hazard Class 9 Packing Group ш IMDG/IMO UN-No UN3077 **Proper Shipping Name** Environmentally hazardous substances, solid, n.o.s. Hazard Class 9 Packing Group ш

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.