

# SAFETY DATA SHEET

Date Printed: 09/21/2024

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## SECTION 1. IDENTIFICATION

**Product Identifier:** (5N) 99.999% Gold Nitrate

**Product Code:** AU-NAT-05

**CAS Number:** 13464-77-2

**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

Statements of Hazard: Oxidizing solid, Irritant

Acute Health Hazard: Irritant to eyes, skin, mucous membranes and respiratory system. May be harmful by ingestion, inhalation or skin absorption.

Chronic Health Hazard: Not Available

HMIS Rating: H:1 F:1 P:2

NFPA Rating: H:1 F:1 R:2

To the best of our knowledge, the toxicological properties of this chemical have not been thoroughly investigated. Use appropriate procedures and precautions to prevent or minimize exposure.



Pictogram:

Signal Word: Danger

Hazard Statement(s):

H272

May intensify fire; oxidizer.

H302

Harmful if swallowed.

H312

Harmful in contact with skin.

H314

Causes skin irritation.

H318

Causes serious eye damage.

H332

Harmful if inhaled.

H335

May cause respiratory irritation.

Precautionary Statement(s):

P210

Keep away from heat/sparks/open flames/hot surfaces.

P220

Keep/Store away from clothing/combustible materials.

P221

Take any precaution to avoid mixing with combustibles.

P261

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

P280

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

P301+P310

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P301+P330+P331

IF SWALLOWED: Rinse mouth.

Do NOT induce vomiting.

P302+P352

IF ON SKIN: Wash with plenty of soap and water.

P303+P361+P353

IF ON SKIN (or hair):

Remove/Take off immediately all contaminated clothing. Rinse SKIN with water/shower.

P304+P340

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332+P313

If skin irritation occurs: Get medical advice/ attention.

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### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name:

Gold nitrate hydrate

Synonyms:

Not Available

CAS Number:

13464-77-2

EINECS Number:

236-687-0

Molecular Formula:

$\text{Au}(\text{NO}_3)_4 \cdot x\text{H}_2\text{O}$

Molecular Weight:

445.99

Content:

95-100%

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## **SECTION 4. FIRST AID MEASURES**

### Eye Contact:

Flush eyes with large amounts of water for fifteen minutes. Separate eyelids with fingers. If irritation persists, seek medical attention.

### Skin Contact:

Wash skin with soap and water. If irritation persists, seek medical attention.

### Ingestion:

Do not induce vomiting. Seek medical attention.

### Inhalation:

Move to a fresh air environment. Contact a physician if breathing becomes difficult.

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## **SECTION 5. FIREFIGHTING MEASURES**

### Flash Point:

Not Available

### Explosion Limits:

Lower: Not Available

Upper: Not Available

### Autoignition:

Not Available

### Extinguishing Media:

Carbon dioxide, dry chemical powder, alcohol-resistant foam or water spray.

### Protective Equipment:

Wear self-contained respirator and fully protective impervious suit.

### Specific Hazards:

May emit hazardous fumes under fire conditions. May intensify fire.

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

### Personal Protection:

Wear a self-contained breathing apparatus, rubber boots and gloves, and disposable coveralls.

Dispose of coveralls after use.

Keep unprotected persons away.

### Environmental Protection:

Keep spills out of sewers and bodies of water. Dike and contain the spill with inert material. Absorb on sand, vermiculite or diatomite. Transfer material to a container for disposal or recovery. Ventilate area and wash spill site after material pickup is complete.

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## **SECTION 7. HANDLING AND STORAGE**

### Handling:

Avoid breathing dust, vapor, mist or gas. Avoid contact with skin and eyes. Avoid prolonged or repeated exposure. Use only in a chemical fume hood. Open and handle container with care. Keep ignition sources away.

### Storage:

Store in a tightly closed container in a dry, well-ventilated place. Store away from reducing agents and organic materials.

Sensitivities:  
Not Available  
Storage Temperature:  
15 – 30 °C

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

Eyes:

Wear appropriate protective eyeglass or chemical safety goggles. Make sure that there is an eyewash facility in your vicinity.

Skin:

Wear impervious gloves and protective clothing.

Respiratory:

Use a NIOSH approved respirator when exposure limits are exceeded or if irritation or other symptoms are experienced.

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

Appearance:

Brown crystalline powder

Odor:

Not Available

Melting Point:

72 °C

Boiling Point:

Not Available

pH Value:

Not Available

Density:

Not Available

Refractive Index, n<sub>20D</sub>:

Not Available

Viscosity:

Not Available

Solubility in Water:

Slightly soluble

Vapor Pressure:

Not Available

Vapor Density(Air=1):

Not Available

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

Stability:

Stable under normal temperatures and pressures.

Incompatibility:

Strong reducing agents, Organic materials.

Conditions to Avoid:

Heat, Flame, Sparks, Other ignition sources, Shock

Hazardous Decomposition Products: Gold oxide, Nitrogen oxides.

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

RTECS Reference:

Not Available

Target Organs:

Not Available

Toxicity Data:

Not Available

Skin corrosion/irritation:

Not Available

Serious eye damage/irritation:

Not Available

Carcinogenicity:

Not Available

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## **SECTION 12. ECOLOGICAL INFORMATION**

Toxicity:

Not Available

Persistence and degradability:

Not Available

Bioaccumulative potential:

Not Available

Mobility in soil:

Not Available

PBT and vPvB assessment:

Not Available

Other adverse effects:

Not Available

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

Contact a licensed professional waste disposal service. Dispose in a manner consistent with federal, state and local environmental regulations.

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## **SECTION 14. TRANSPORT INFORMATION**

DOT Shipping Name: Nitrates, Inorganic, N.O.S.

DOT UN Number: UN1477

DOT Hazard Class: Class 5.1

DOT Packing Group: II

IMDG Shipping Name: Nitrates, Inorganic, N.O.S.

IMDG UN Number: UN1477

IMDG Hazard Class: Class 5.1

IMDG Packing Group: II

IATA Shipping Name: Nitrates, Inorganic, N.O.S.

IATA UN Number: UN1477  
IATA Hazard Class: Class 5.1  
IATA Packing Group: II

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## **SECTION 15. REGULATORY INFORMATION**

United States:

Toxic Substance Control Act (TSCA): Listed

Superfund Amendments and Reauthorization Act (SARA 302): Not listed

Superfund Amendments and Reauthorization Act (SARA 311/312): Not listed

Superfund Amendments and Reauthorization Act (SARA 313): Not listed

European Union:

European Inventory of Existing Chemical Substances (EINECS): 236-687-0

Hazard Codes:

Not Available

Risk Statements: Not Available

Safety Statements: Not Available

Canada

Canadian Domestic Substances List (DSL): Not listed

Canadian Domestic Substances List (NDSL): Listed

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## **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.