

SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name AAAGCN

Other means of identification

Product Description 1000 µg/mL: Ag

Recommended use of the chemical and restrictions on use

Recommended Use Laboratory chemicals.

Uses advised against No information available

Details of the supplier of the safety data sheet

Company

Inorganic Ventures
300 Technology Drive
Christiansburg, VA 24073
Phone: 1(800) 669-6799
Email: info@inorganicventures.com

Emergency Telephone Number

Chemtrec 1-800-424-9300 (North America)
Chemtrec +1 703-741-5970 (International)

2. HAZARDS IDENTIFICATION

GHS

Classification

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

Label Elements

Warning

The product contains no substances which at their given concentration, are considered to be hazardous to health

Appearance clear / colorless

Physical state Liquid

Odor Odorless

Hazards not otherwise classified (HNOC)

• Very toxic to aquatic life with long lasting effects

Other Information

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

This material is not considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Chemical name	CAS No.	Weight-%
Silver	7440-22-4	0.1

4. FIRST AID MEASURES

Description of first aid measures

General Advice	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.
Eye Contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. If symptoms persist, call a physician.
Skin Contact	Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Inhalation	Immediate medical attention is required. Remove to fresh air. Artificial respiration and/or oxygen may be necessary. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.
Ingestion	Immediate medical attention is required. Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person.
Self-protection of the first aider	Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects	Difficulty in breathing.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat as cyanide poisoning Symptoms may be delayed
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Decomposition by contact with water may generate vapors which can be ignited by heat or open flame.

Special Exposure Hazards Arising from the Substance/Mixture

Thermal decomposition can lead to release of irritating and toxic gases and vapors

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Use personal protective equipment as required. Do not get in eyes, on skin, or on clothing.

Other Information Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment. See Section 12 for additional Ecological Information. Avoid release to the environment. Collect spillage. Dispose of contents/container to an approved waste disposal plant.

Methods and material for containment and cleaning up

Methods for Cleaning up Dam up. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water. Prevent product from entering drains.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Wear personal protective equipment. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not get in eyes, on skin, or on clothing. Do not breathe vapors or spray mist.

Conditions for safe storage, including any incompatibilities

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

Incompatible Products None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Silver 7440-22-4	TWA: 0.1 mg/m ³ dust and fume	TWA: 0.01 mg/m ³ (vacated) TWA: 0.01 mg/m ³	IDLH: 10 mg/m ³ TWA: 0.01 mg/m ³ TWA: 0.9 µg/m ³

Appropriate engineering controls

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye Protection Tightly fitting safety goggles
Skin and Body Protection Impervious clothing Boots Chemical resistant apron
Hand Protection Impervious gloves
Respiratory Protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid
Appearance	clear / colorless
Odor	Odorless
pH - VALUE 1	No data available
Melting point / melting range	No data available
Initial boiling point and boiling range	100 °C / 212 °F
Flash Point	Not applicable
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Vapor pressure @20 °C (kPa)	No data available
Relative vapor density	No data available
Relative Density	No data available
Specific gravity - VALUE 1	No data available
Water solubility	Miscible
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Dynamic viscosity - VALUE 1	No data available
Explosive Properties	No information available
Oxidizing Properties	No information available
VOC content	No information available

10. STABILITY AND REACTIVITY**Reactivity**

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Hazardous Polymerization

None under normal processing.

Conditions to Avoid

Acidic Conditions.

Incompatible materials

Acids Strong oxidizing agents

Hazardous decomposition products

Cyanides. Hydrogen cyanide.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Harmful by inhalation Harmful in contact with skin Harmful if swallowed
Inhalation	Harmful by inhalation. Effects of overexposure may be delayed due to the slow formation of cyanide anions in the body. Cyanide anions prevent the body from using oxygen and can lead to internal asphyxiation. Silver in the form of a finely divided dust may cause discoloration in contact with skin, and argyrosis in case of inhalation.
Eye Contact	May cause irritation. Silver in the form of a finely divided dust may cause discoloration in contact with skin, and argyrosis in case of inhalation.
Skin Contact	Harmful in contact with skin. May be absorbed through the skin in harmful amounts. Symptoms may be delayed. Silver in the form of a finely divided dust may cause discoloration in contact with skin, and argyrosis in case of inhalation.
Ingestion	Harmful if swallowed. Ingestion of soluble silver salts may cause argyria, characterized by permanent blue-gray pigmentation of the skin, mucous membranes, and eyes.

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Silver - 7440-22-4	> 5000 mg/kg (Rat)	> 2000 mg/kg (rat)	> 5.16 mg/L (Rat) 4 h

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	No information available.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	No information available.
Mutagenic Effects	No information available.
Carcinogenic effects	No information available

Reproductive Toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Ecotoxicity effects	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
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Contains 0 % of components with unknown hazards to the aquatic environment

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Silver 7440-22-4		LC50: 0.00155 - 0.00293mg/L (96h, Pimephales promelas) LC50: =0.0062mg/L (96h, Oncorhynchus mykiss) LC50: =0.064mg/L (96h, Lepomis macrochirus)		EC50: =0.00024mg/L (48h, Daphnia magna)

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from Residues/Unused Products Dispose of in accordance with federal, state and local regulations

Contaminated Packaging Do not reuse empty containers.

Chemical name	California Hazardous Waste Status
Silver 7440-22-4	Toxic

14. TRANSPORT INFORMATION

IMDG

14.1. UN-No UN1935

14.2. Proper shipping name Cyanide solution, n.o.s

14.3. Transport hazard class(es) 6

14.4. Packing Group III

Description Not applicable

14.5. Marine Pollutant None

14.6. Special Provisions None

No information available Transport No information available in bulk according to Annex II of MARPOL 73/78 and the IBC Code

RID

14.1. UN-No UN1935

14.2. Proper shipping name Cyanide solution, n.o.s

14.3. Transport hazard class(es) 6

14.4. Packing Group III

Description Not applicable

14.5. Environmental hazard None

14.6. Special Provisions None

ADR

14.1. UN-No UN1935

14.2. Proper shipping name Cyanide solution, n.o.s

14.3. Transport hazard class(es) 6

14.4. Packing Group III

Description Not applicable

14.5. Environmental hazard None

14.6. Special Provisions None

ICAO

14.1. UN-No UN1935

14.2. Proper Shipping Name Cyanide solution, n.o.s

14.3. Hazard Class 6

14.4. Packing Group III

Description	Not applicable
14.5. Environmental hazard	None
14.6. Special Provisions	None

IATA-DGR

14.1. UN-No	UN1935
14.2. Proper shipping name	Cyanide solution, n.o.s
14.3. Transport hazard class(es)	6
14.4. Packing Group	III
Description	Not applicable
14.5. Environmental hazard	None
14.6. Special Provisions	None

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AIIC	Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
 EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
 ENCS - Japan Existing and New Chemical Substances
 IECSC - China Inventory of Existing Chemical Substances
 KECL - Korean Existing and Evaluated Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	CAS No.	Weight-%	SARA 313 - Threshold Values %
Silver - 7440-22-4	7440-22-4	0.1	1.0

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	Not classified
Fire hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Silver 7440-22-4		X	X	

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive

Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Silver 7440-22-4	1000 lb 1 lb		RQ 1000 lb final RQ RQ 454 kg final RQ RQ 1 lb final RQ RQ 0.454 kg final RQ

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Silver 7440-22-4	X	X	X

U.S. EPA Label Information

16. OTHER INFORMATION

Revision Date 17-Jun-2025

Revision Note

No information available

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of SDS