

Issuing Date 15-Jun-2023

Revision Date 15-Jun-2023

Revision Number 1

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**Product identifier****Product Name** AACUCN**Other means of identification**

Product Description 1 000 µg/mL Copper

Recommended use of the chemical and restrictions on use**Recommended Use** Laboratory chemicals**Restriction on Use** No information available**Details of the supplier of the safety data sheet**

Company	Inorganic Ventures 300 Technology Drive Christiansburg, VA 24073 web: www.inorganicventures.com	E-mail Address	info@inorganicventures.com
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Emergency telephone number**Emergency Telephone** CHEMTREC (US Transportation): (800) 424-9300
+34.678750066**Section 2: HAZARDS IDENTIFICATION****Classification**

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 4

Label Elements**Warning****Hazard statements**Harmful if swallowed
Harmful in contact with skin
Harmful to aquatic life

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Avoid release to the environment

Precautionary Statements - Response

Specific treatment (see .? on this label)

Skin

IF ON SKIN: Wash with plenty of water and soap
Call a POISON CENTER or doctor if you feel unwell
Take off contaminated clothing and wash it before reuse

Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell
Rinse mouth

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other Information

Very toxic to aquatic life with long lasting effects

Unknown acute toxicity 0 % of the mixture consists of ingredient(s) of unknown toxicity

- 0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
- 0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
- 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
- 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
- 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS**Substance**

Not applicable.

Mixture

Chemical name	CAS No	Weight-%	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
Sodium cyanide	143-33-9	0.4	-	
Copper	7440-50-8	0.1	-	

Section 4: FIRST AID MEASURES**Description of first aid measures****General advice**

Show this safety data sheet to the doctor in attendance.

Inhalation

Remove to fresh air.

Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water.
Ingestion	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	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Symptoms	No information available.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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Section 5: FIRE FIGHTING MEASURES

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	CAUTION: Use of water spray when fighting fire may be inefficient.
Specific hazards arising from the chemical	No information available.
Explosion Data	
Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Section 6: ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal precautions	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required.
Other information	Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Pick up and transfer to properly labeled containers.

Section 7: HANDLING AND STORAGE**Precautions for safe handling**

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Store locked up.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits

Chemical name	Alberta	British Columbia	Ontario TWAEV	Quebec
Sodium cyanide 143-33-9	Ceiling: 5 mg/m ³	Ceiling: 5 mg/m ³	CEV: 5 mg/m ³ Skin	Ceiling: 10 ppm Ceiling: 11 mg/m ³
Copper 7440-50-8	TWA: 0.2 mg/m ³ TWA: 1 mg/m ³	TWA: 1 mg/m ³ TWA: 0.2 mg/m ³	TWA: 0.2 mg/m ³ TWA: 1 mg/m ³	TWA: 0.2 mg/m ³ TWA: 1 mg/m ³

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Hand protection Wear suitable gloves.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Liquid
Appearance clear / Pale yellow
Odor Bitter almond
Odor Threshold No information available

<u>Property</u>	<u>Values</u>
Melting point / freezing point	No data available
Flash point	No data available
Flammability (solid, gas)	No data available
Upper flammability or explosive limits	No data available

pH	No data available
Boiling point / boiling range	No data available
Evaporation rate	No data available
Flammability Limit in Air	

Lower flammability or explosive limits	No data available		
Vapor pressure	No data available	Vapor density	No data available
Relative Density	No information available	Water solubility	No data available
None known		Solubility in other solvents	
Partition coefficient: n-octanol/water	No data available	Autoignition temperature	No data available
Decomposition temperature	No data available	Viscosity, kinematic	No data available
Dynamic viscosity	No data available	None known	
Other information			
Explosive properties	No information available.		
Oxidizing properties	No information available.		
Softening Point	No information available		
Molecular Weight	No information available		
VOC Content (%)	No information available		
Liquid Density	No information available		
Bulk density	No information available		

Section 10: STABILITY AND REACTIVITY

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Hazardous Polymerization	None under normal processing.
Conditions to Avoid	None known based on information supplied.
Incompatible materials	None known based on information supplied.
Hazardous decomposition products	Cyanides. Hydrogen cyanide.

Section 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	May be absorbed through the skin in harmful amounts.
Ingestion	Specific test data for the substance or mixture is not available.

Information on toxicological effects

Symptoms	No information available.
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Acute toxicity

Numerical measures of toxicity

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

ATEmix (oral) 1,433.2500 mg/kg
 ATEmix (dermal) 1,250.00 mg/kg
 ATEmix (inhalation-dust/mist) 12.50 mg/l

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Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium cyanide 143-33-9	= 5.733 mg/kg (Rat)	= 14.602 mg/kg (Rabbit)	= 0.16 mg/L (Rat) 1 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation No information available.
Serious eye damage/eye irritation No information available.
Respiratory or skin sensitization No information available.
Germ cell mutagenicity No information available.
Carcinogenicity No information available.
Reproductive toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Target Organ Effects Respiratory system, Skin.
Aspiration hazard No information available.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity Harmful to aquatic life.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Sodium cyanide 143-33-9	.?	0.066 - 0.0852: 96 h Lepomis macrochirus mg/L LC50 flow-through 0.15: 96 h Lepomis macrochirus mg/L LC50 static 0.0391 - 0.0548: 96 h Oncorhynchus mykiss mg/L LC50 static 0.0558 - 0.0586: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.0712 - 0.0936: 96 h Pimephales promelas mg/L LC50 flow-through 0.17: 96 h Pimephales promelas mg/L LC50	-	-

		static		
Copper 7440-50-8	EC50 0.031 - 0.054 mg/L 96 h EC50 0.0426 - 0.0535 mg/L 72 h	0.0068 - 0.0156: 96 h Pimephales promelas mg/L LC50 0.2: 96 h Pimephales promelas mg/L LC50 flow-through 0.3: 96 h Cyprinus carpio mg/L LC50 semi-static 0.3: 96 h Pimephales promelas mg/L LC50 static 1.25: 96 h Lepomis macrochirus mg/L LC50 static 0.8: 96 h Cyprinus carpio mg/L LC50 static 0.052: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.112: 96 h Poecilia reticulata mg/L LC50 flow-through	-	EC50 48 h = 0.03 mg/L (Daphnia magna)

Persistence and Degradability No information available.

Bioaccumulation No information available.

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

Section 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. Hazard Class 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. Hazard Class	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

Section 15: REGULATORY INFORMATION**Safety, health and environmental regulations/legislation specific for the substance or mixture****International Regulations**

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories

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

Section 16: OTHER INFORMATION

National Fire Protection Association	Health hazards 1	Flammability 0	Instability 0	Physical and chemical properties -
HMIS	Health hazards 2	Flammability 0	Physical hazards 0	Personal protection X

Key or legend to abbreviations and acronyms used in the safety data sheet

LEG8 Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

LEGTWA	TWA (time-weighted average)	LEGST	STEL (Short Term Exposure Limit)
LEGC	Maximum limit value	LEGSKN	Skin designation

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGl(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
RTECS (Registry of Toxic Effects of Chemical Substances)
World Health Organization

Revision Date 15-Jun-2023

Revision Note No information available.

Disclaimer

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End of SDS