

SAFETY DATA SHEET

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

Product identifier

Product Name IV-STOCK-40

Other means of identification

Product Description 1000 µg/mL: Cu; 500 µg/mL: Ni; 100 µg/mL: Mo, V; 25 µg/mL: Cd; 15 µg/mL: Hg; 5 µg/mL: Pb; 1.5 µg/mL: As

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

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Corrosive to metals	Category 1

Label Elements

Danger

Hazard statements

Causes skin irritation
Causes serious eye damage
May be corrosive to metals



Appearance clear /AQUA**Physical state** Liquid**Odor** Odorless**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling
 Wear protective gloves/protective clothing/eye protection/face protection
 Keep only in original container

Precautionary Statements - Response**Eyes**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 Immediately call a POISON CENTER or doctor/physician

Skin

IF ON SKIN: Wash with plenty of soap and water
 If skin irritation occurs: Get medical advice/attention
 Take off contaminated clothing and wash before reuse

Spill

Absorb spillage to prevent material damage

Hazards not otherwise classified (HNOC)

- May cause long lasting harmful effects to aquatic life

Other Information

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%
Nitric acid	7697-37-2	4.9
Copper	7440-50-8	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	Immediate medical attention is required. 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.
Skin Contact	Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Inhalation	Call a physician or poison control center immediately. Remove to fresh air. If breathing is difficult, give oxygen. If breathing is irregular or stopped, administer artificial respiration. 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 Burn. Difficulty in breathing.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure

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

The product causes burns of eyes, skin and mucous membranes Thermal decomposition can lead to release of irritating 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.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system. Prevent product from entering drains. See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Cleaning up Dam up. Neutralise with lime milk; soda. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water.

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
Nitric acid 7697-37-2	TWA: 2 ppm STEL: 4 ppm	TWA: 2 ppm TWA: 5 mg/m ³ (vacated) TWA: 2 ppm (vacated) TWA: 5 mg/m ³ (vacated) STEL: 4 ppm (vacated) STEL: 10 mg/m ³	IDLH: 25 ppm TWA: 2 ppm TWA: 5 mg/m ³ STEL: 4 ppm STEL: 10 mg/m ³
Copper 7440-50-8	TWA: 0.2 mg/m ³ fume	TWA: 0.1 mg/m ³ TWA: 1 mg/m ³ (vacated) TWA: 0.1 mg/m ³	IDLH: 100 mg/m ³ TWA: 1 mg/m ³ TWA: 0.1 mg/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 Face-shield
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 /AQUA
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
Literary reference
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
Literary reference
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

None known.

Incompatible materials

Bases Cyanides

Hazardous decomposition products

Nitrogen oxides (NOx).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

The product causes burns of eyes, skin and mucous membranes

Inhalation

Causes burns. Corrosive to respiratory system. Inhaled corrosive substances can lead to a toxic edema of the lungs. Contact with moist mucous membranes of the respiratory system can cause caustic condition resulting in burns. Aspiration may cause pulmonary edema and pneumonitis.

Eye Contact

Causes burns.

Skin Contact

Causes burns.

Ingestion

Can burn mouth, throat, and stomach.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Nitric acid - 7697-37-2	-	-	= 2500 ppm (Rat) 1 h
Copper - 7440-50-8	-	-	> 5.11 mg/L (Rat) 4 h

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms

No information available.

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

Chemical name	ACGIH	IARC	NTP	OSHA
Nitric acid 7697-37-2		Group 1 Group 2A		X

Reproductive Toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Target organ effects	Skin, Eyes, Respiratory system.
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

ATEmix (inhalation-dust/mist)	10.2 mg/L
ATEmix (inhalation-vapor)	65.7 mg/L

12. ECOLOGICAL INFORMATION**Ecotoxicity****Ecotoxicity effects**

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Copper 7440-50-8	EC50: 0.0426 - 0.0535mg/L (72h, Pseudokirchneriella subcapitata) EC50: 0.031 - 0.054mg/L (96h, Pseudokirchneriella subcapitata)	LC50: 0.0068 - 0.0156mg/L (96h, Pimephales promelas) LC50: <0.3mg/L (96h, Pimephales promelas) LC50: =0.2mg/L (96h, Pimephales promelas) LC50: =0.052mg/L (96h, Oncorhynchus mykiss) LC50: =1.25mg/L (96h, Lepomis macrochirus) LC50: =0.3mg/L (96h, Cyprinus carpio) LC50: =0.8mg/L (96h, Cyprinus carpio) LC50: =0.112mg/L (96h, Poecilia reticulata)		EC50: =0.03mg/L (48h, Daphnia magna)

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

Chemical name	Partition coefficient
Nitric acid 7697-37-2	-2.3

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
Nitric acid	Toxic

7697-37-2	Corrosive Ignitable
Copper 7440-50-8	Toxic

14. TRANSPORT INFORMATION

IMDG

14.1. UN-No	UN3264
14.2. Proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s
14.3. Transport hazard class(es)	8
14.4. Packing Group	III
Description	Not applicable
14.5. Marine Pollutant	None
14.6. Special Provisions	None
No information available in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

RID

14.1. UN-No	UN3264
14.2. Proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s
14.3. Transport hazard class(es)	8
14.4. Packing Group	III
Description	Not applicable
14.5. Environmental hazard	None
14.6. Special Provisions	None

ADR

14.1. UN-No	UN3264
14.2. Proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s
14.3. Transport hazard class(es)	8
14.4. Packing Group	III
Description	Not applicable
14.5. Environmental hazard	None
14.6. Special Provisions	None

ICAO

14.1. UN-No	UN3264
14.2. Proper Shipping Name	Corrosive liquid, acidic, inorganic, n.o.s
14.3. Hazard Class	8
14.4. Packing Group	III
Description	Not applicable
14.5. Environmental hazard	None
14.6. Special Provisions	None

IATA-DGR

14.1. UN-No	UN3264
14.2. Proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s
14.3. Transport hazard class(es)	8
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
AIC	Complies

Legend:

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 contains a chemical or 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 %
Nitric acid - 7697-37-2	7697-37-2	4.9	1.0
Copper - 7440-50-8	7440-50-8	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
Nitric acid 7697-37-2	1000 lb			X
Copper 7440-50-8		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
Nitric acid 7697-37-2	1000 lb	1000 lb	RQ 1000 lb final RQ RQ 454 kg final RQ
Copper 7440-50-8	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

U.S. State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical name	California Proposition 65
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Nickel - 7440-02-0	Carcinogen
Vanadium pentoxide - 1314-62-1	Carcinogen
Cadmium and compounds (as Cd) - 7440-43-9	Carcinogen Developmental Male Reproductive
Mercury - 7439-97-6	Developmental
Lead nitrate - 10099-74-8	Carcinogen

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Nitric acid 7697-37-2	X	X	X
Copper 7440-50-8	X	X	X

U.S. EPA Label Information**16. OTHER INFORMATION**

Revision date 12-Nov-2025

Revision Note

No information available

End of SDS