

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Name IV-STOCK-70

Synonyms 1100 µg/mL: Cr; 600 µg/mL: Sn; 300 µg/mL: Cu, Mo; 140 µg/mL: Ba; 120 µg/mL: Sb; 55 µg/mL: Li; 20 µg/mL: Ni; 15 µg/mL: Ag, Se; 10 µg/mL: Au, Ir, Os, Pd, Pt, Rh, Ru, V; 5 µg/mL: Co; 3 µg/mL: Hg; 1.5 µg/mL: As; 0.8 µg/mL: Tl; 0.5 µg/mL: Cd, Pb

Contains Hydrogen chloride

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use Laboratory chemicals

Uses advised against No information available

1.3. 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

1.4. Emergency telephone number

Chemtrec 1-800-424-9300 (North America)

Chemtrec +1 703-741-5970 (International)

Europe	See above
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

*Classification according to
Regulation (EC) No. 1272/2008 [CLP]*

GHS

Acute toxicity - Inhalation (Gases)	Category 4 - (H332)
Skin corrosion/irritation	Category 1 Sub-category A - (H314)
Corrosive to metals	Category 1 - (H290)

2.2. Label elements

Product identifier

Contains Hydrogen chloride

**Signal word**

Danger

Hazard statements

H290 - May be corrosive to metals

H314 - Causes severe skin burns and eye damage

H332 - Harmful if inhaled

Precautionary statements

P260 - Do not breathe dust, fume, gas, mist, vapors and spray

P280 - Wear protective gloves, protective clothing, eye protection and face protection

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor

2.3. Other hazards

Other hazards

Harmful to aquatic life

No information available

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical name	EC No. (Index No.)	CAS No.	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Hydrogen chloride	231-595-7 (017-002-00-2) (017-002-01-X)	7647-01-0	6.6	Press. Gas Skin Corr. 1A (H314) Acute Tox. 3 (H331)	No data available
Copper	231-159-6 (029-026-00-0)	7440-50-8	0.03	Aquatic Chronic 2 (H411)	No data available

Full text of H- and EUH-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures**Inhalation**

Remove to fresh air.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Ingestion

Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Consult a physician.

Self-protection of the first aider

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

4.2. Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects Asthma-like and/ or skin allergy-like symptoms.

4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable Extinguishing Media**

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

Unsuitable Extinguishing Media

No information available

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors

5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****Personal Precautions**

Ensure adequate ventilation.

Refer to protective measures listed in Sections 7 and 8.

Advice for emergency responders

Ensure adequate ventilation.

6.2. 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.

6.3. 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 Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

See Section 12: ECOLOGICAL INFORMATION.

SECTION 7: Handling and storage

7.1. Precautions for safe handling**Advice on safe handling**

Ensure adequate ventilation.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities**Storage Conditions**

Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)**SECTION 8: Exposure controls/personal protection****8.1. Control parameters**

Chemical name	European Union (Directives 98/24/EC and 2004/37/EC)	United Kingdom	France (INRS ED 6443)	Spain (Occupational exposure limits for chemical agents in Spain, 2025)	Germany (DFG)	
Hydrogen chloride 7647-01-0	TWA: 5 ppm; TWA: 8 mg/m³; STEL: 10 ppm; STEL: 15 mg/m³;	TWA: 1 ppm; gas and aerosol mist TWA: 2 mg/m³; gas and aerosol mist STEL: 5 ppm; gas and aerosol mist STEL: 8 mg/m³; gas and aerosol mist	STEL-VLCT (restrictif): 5 ppm; STEL-VLCT (restrictif): 7.6 mg/m³;	TWA-(VLA-ED): 5 ppm; TWA-(VLA-ED): 7.6 mg/m³; STEL (VLA-EC): 10 ppm; STEL (VLA-EC): 15 mg/m³;	TWA-MAK: 2 ppm; I(2); TWA-MAK: 3.0 mg/m³; I(2);	
Copper 7440-50-8		TWA: 1 mg/m³; dust and mist TWA: 0.2 mg/m³; fume STEL: 0.6 mg/m³; fume STEL: 2 mg/m³; dust and mist	TWA-VME: 0.2 mg/m³; fume TWA-VME: 1 mg/m³; dust STEL-VLCT: 2 mg/m³; dust	TWA-(VLA-ED): 0.01 mg/m³; respirable fraction	TWA-MAK: 0.01 mg/m ³; II(2); respirable fraction	
Chemical name	Italy (Legislative Decree no. 81)	Portugal (NP 1796:2014)	Netherlands (Working Conditions Regulations)	Finland (HTP-ARVOT 2025)	Denmark (BEK no. 1619 of 19/12/2024)	
Hydrogen chloride 7647-01-0	TWA: 5 ppm; TWA: 8 mg/m³; STEL: 10 ppm; STEL: 15 mg/m³;	TWA (VLE-MP): 5 ppm; TWA (VLE-MP): 8 mg/m³; STEL (VLE-CD): 10 ppm; STEL (VLE-CD): 15 mg/m³; Ceiling (VLE-CM): 2 ppm;	TWA: 5 ppm; TWA: 8 mg/m³; STEL: 10 ppm; STEL: 15 mg/m³;	STEL: 5 ppm; STEL: 7.6 mg/m³;	STEL: 5 ppm; STEL: 8 mg/m³;	
Copper 7440-50-8		TWA (VLE-MP): 0.2 mg/m³; fume TWA (VLE-MP): 1 mg/m³; dust; mist	TWA: 0.1 mg/m³; inhalable	TWA: 0.02 mg/m³; respirable dust	TWA: 1.0 mg/m³; dust and powder TWA: 0.1 mg/m³; fume STEL: 2 mg/m³; dust and powder STEL: 0.2 mg/m³; fume	
Chemical name	Sweden	Austria (GKV BGBl. II Nr. 330/2024)	Switzerland (MAK Values)	Poland (Legislative Journal 2018 item 1286)	Norway (FOR-2011-12-06- 1358)	Ireland (CoP 2024)
Hydrogen chloride 7647-01-0	LLV: 2 ppm LLV: 3 mg/m³ Binding STL _V : 4 ppm Binding STL _V : 6	TWA-TMW: 5 ppm; TWA-TMW: 8 mg/m³; STEL-KZGW: 10 ppm (8 X 5 min);	TWA-MAK: 2 ppm; TWA-MAK: 3 mg/m³; STEL-KZGW: 4 ppm;	TWA-NDS: 5 mg/m³; STEL-NDSch: 10 mg/m³;	Ceiling: 5 ppm; Ceiling: 7 mg/m³;	TWA: 8 mg/m³; TWA: 5 ppm; STEL: 10 ppm; STEL: 15 mg/m³;

	mg/m ³	STEL-KZGW: 15 mg/m ³ (8 X 5 min);	STEL-KZGW: 6 mg/m ³ ;			
Copper 7440-50-8	LLV: 1 mg/m ³ LLV: 0.2 mg/m ³	TWA-TMW: 1 mg/m ³ ; inhalable fraction TWA-TMW: 0.1 mg/m ³ ; respirable fraction, smoke STEL-KZGW: 4 mg/m ³ (4 X 15 min); inhalable fraction STEL-KZGW: 0.4 mg/m ³ (4 X 15 min); respirable fraction, smoke	TWA-MAK: 0.1 mg/m ³ ; inhalable dust STEL-KZGW: 0.2 mg/m ³ ; inhalable dust	TWA-NDS: 0.2 mg/m ³ ;	TWA: 0.1 mg/m ³ ; fume TWA: 1 mg/m ³ ; dust STEL: 3 mg/m ³ (value calculated); dust STEL: 0.3 mg/m ³ (value calculated); fume	TWA: 0.2 mg/m ³ ; fume TWA: 1 mg/m ³ ; dusts and mists STEL: 2 mg/m ³ ; dusts and mists STEL: 0.6 mg/m ³ (calculated); fume

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC)

8.2. Exposure controls

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/Face Protection Wear safety glasses with side shields (or goggles).
Hand Protection Impervious gloves.
Skin and Body Protection Long sleeved clothing.

Environmental Exposure Controls Prevent product from entering drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	clear /brown
Odor	Slight chlorine
pH - VALUE 1	No data available
Melting Point/Range	No data available
Initial boiling point and boiling range	100 °C / 212 °F
Flash Point	Not applicable
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	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

SECTION 10: Stability and reactivity**10.1. Reactivity**

No data available.

10.2. Chemical stability

Stable under normal conditions.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

10.3. Possibility of hazardous reactions**Hazardous polymerization**

None under normal processing.

Hazardous Reactions

None under normal processing.

10.4. Conditions to avoid

Heating can release hazardous gases.

10.5. Incompatible materials

Bases Cyanides

10.6. Hazardous decomposition products

Hydrogen chloride.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute Toxicity**

<u>Product Information</u>	Product does not present an acute toxicity hazard based on known or supplied information.
Inhalation	No data available.
Eye Contact	No data available.
Skin Contact	No data available.
Ingestion	No data available.

The following ATE values have been calculated for the mixture

ATEmix (oral)	99,999.00
ATEmix (dermal)	99,999.00
ATEmix (inhalation-gas)	8,534.88 ppm
ATEmix (inhalation-dust/mist)	7.5909 mg/l
ATEmix (inhalation-vapor)	99,999.000
<u>Unknown acute toxicity</u>	
2E-05 % of the mixture consists of ingredient(s) of unknown acute toxicity.	
2E-05 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.	
2E-05 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.	
2E-05 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).	
2E-05 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).	
2E-05 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).	

Component Information

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Sensitization	No information available.
Mutagenic Effects	No information available.
Carcinogenic effects	
Reproductive Toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	May cause disorder and damage to the. Central nervous system.
Aspiration hazard	No information available.

SECTION 12: Ecological information**12.1. Toxicity**

Contains 2E-05 % of components with unknown hazards to the aquatic environment

Chemical name	Algae/aquatic plants	Fish	Crustacea
Copper	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)

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

No information available.

Chemical name	PBT and vPvB assessment
Hydrogen chloride	Not PBT/vPvB
Copper	Not PBT/vPvB

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. 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.

Other information

Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 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 hazards	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 hazards	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 hazards	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 hazards	None
14.6. Special Provisions	None

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

International Inventories

All of the components in the product are on the following Inventory lists: U.S.A. (TSCA), Europe (EINECS/ELINCS/NLP), Canada (DSL/NDSL), Philippines (PICCS), Japan (ENCS), China (IECSC), Australia (AICS), Korea (ECL).

TSCA	Complies
EINECS/ELINCS	Complies
DSL/NDSL	Complies
PICCS	Complies
ENCS	Complies
IECSC	Complies
AIC	Complies
KECL	Complies

Legend

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
PICCS - Philippines Inventory of Chemicals and Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
AICS - Australian Inventory of Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances

15.2. Chemical safety assessment

No information available

SECTION 16: Other information**Full text of R-phrases referred to under sections 2 and 3**

No information available

Full text of any hazard and/or precautionary statements referred to under Sections 2-15

H314 - Causes severe skin burns and eye damage

H331 - Toxic if inhaled

H411 - Toxic to aquatic life with long lasting effects

Revision date 21-Sep-2026

Reason for Revision Not applicable.

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

End of Safety Data Sheet