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Revision Number 3

# SAFETY DATA SHEET

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

### Product identifier

**Product Name** IV-STOCK-60

### Other means of identification

**Product Description** 1 100.00 µg/mL ea: Cr<sup>3+</sup>; 300.00 µg/mL ea: Cu, Mo; 20.00 µg/mL ea: Ni; 10.00 µg/mL ea: Ir, Os, Pd, Pt, Rh, Ru, V; 3.00 µg/mL ea: Hg; 1.50 µg/mL ea: As; 0.50 µg/mL ea: Cd, Pb

### 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  
web: [www.inorganicventures.com](http://www.inorganicventures.com)

### Emergency telephone number

#### **Emergency Telephone Number**

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

## 2. HAZARDS IDENTIFICATION

### GHS

#### Classification

|                                     |                           |
|-------------------------------------|---------------------------|
| Acute toxicity - Inhalation (Gases) | Category 4                |
| Skin corrosion/irritation           | Category 1 Sub-category B |
| Serious eye damage/eye irritation   | Category 1                |

#### Label Elements

#### **Danger**

#### **Hazard statements**

May be harmful if swallowed  
Harmful if inhaled  
Causes severe skin burns and eye damage



**Appearance** clear / brown**Physical state** Liquid**Odor** Slight chlorine**Precautionary Statements - Prevention**

Use only outdoors or in a well-ventilated area

Do not breathe dust/fume/gas/mist/vapors/spray

Wash face, hands and any exposed skin thoroughly after handling

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

**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 (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

Wash contaminated clothing before reuse

**Inhalation**

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

Call a POISON CENTER or doctor/physician if you feel unwell

Immediately call a POISON CENTER or doctor/physician

**Ingestion**

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

- Harmful to aquatic life with long lasting effects
- Harmful to aquatic life

**Other Information**

No information available

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

| Chemical name     | CAS No    | Weight-% |
|-------------------|-----------|----------|
| Hydrochloric acid | 7647-01-0 | 10       |

**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**

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

|                                                                                          |                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inhalation</b>                                                                        | 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. |
| <b>Ingestion</b>                                                                         | 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.                                       |
| <b>Protection of First-aiders</b>                                                        | Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.                                                                                                              |
| <b><u>Most important symptoms and effects, both acute and delayed</u></b>                |                                                                                                                                                                                                        |
| <b>Most Important Symptoms and Effects</b>                                               | Difficulty in breathing.                                                                                                                                                                               |
| <b><u>Indication of any immediate medical attention and special treatment needed</u></b> |                                                                                                                                                                                                        |
| <b>Notes to Physician</b>                                                                | Treat symptomatically                                                                                                                                                                                  |

## 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. The product causes irritation of eyes, skin and mucous membranes.

#### **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. 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                                                     |
|--------------------------------|----------------|------------------------------------------------|----------------------------------------------------------------|
| Hydrochloric acid<br>7647-01-0 | Ceiling: 2 ppm | Ceiling: 5 ppm<br>Ceiling: 7 mg/m <sup>3</sup> | IDLH: 50 ppm<br>Ceiling: 5 ppm<br>Ceiling: 7 mg/m <sup>3</sup> |

#### **Appropriate engineering controls**

**Engineering Measures** Ensure adequate ventilation, especially in confined areas.

#### **Individual protection measures, such as personal protective equipment**

**Skin and Body Protection** Long sleeved clothing Boots  
**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**

#### **Information on basic physical and chemical properties**

**Physical state** Liquid  
**Appearance** clear / brown  
**Odor** Slight chlorine

#### **Property**

**pH - VALUE 1**  
**Melting Point/Range**  
**Boiling point / boiling range**  
**Flash Point**  
**Evaporation rate**  
**Flammability (solid, gas)**  
**Vapor pressure @20 °C (kPa)**  
**Vapor density**  
**Relative Density**  
**Specific gravity - VALUE 1**  
**Water solubility**

#### **Values**

No data available  
 No data available  
 °C  
 Not applicable  
 No data available  
 No data available  
 No data available  
 No data available  
 No data available  
 No data available  
 No data available  
 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

**Other information**

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**

Hazardous polymerization does not occur.

**Conditions to Avoid**

Extremes of temperature and direct sunlight.

**Incompatible materials**

Reducing agent

**Hazardous decomposition products**

Hydrogen chloride.

**11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure****Product Information**

Harmful by inhalation Irritating to eyes Irritating to respiratory system Irritating to skin

**Inhalation**

Harmful by inhalation. Vapors may be irritating to eyes, nose, throat, and lungs.

**Eye Contact**

Irritating to eyes.

**Skin Contact**

Irritating to skin.

**Ingestion**

Ingestion may cause irritation to mucous membranes.

| Chemical name                 | Oral LD50               | Dermal LD50             | Inhalation LC50         |
|-------------------------------|-------------------------|-------------------------|-------------------------|
| Hydrochloric acid - 7647-01-0 | 238 - 277 mg/kg ( Rat ) | > 5010 mg/kg ( Rabbit ) | = 1.68 mg/L ( Rat ) 1 h |

**Information on toxicological effects****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 |
|--------------------------------|-------|------|-----|------|
| Hydrochloric acid<br>7647-01-0 |       |      |     | X    |

**Reproductive Toxicity**

No information available.

**STOT - single exposure**

No information available.

**STOT - repeated exposure**

No information available.

**Target Organ Effects**

Respiratory system, Eyes, Skin.

**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 (oral)                 | 2380 mg/kg  |
| ATEmix (dermal)               | 50150 mg/kg |
| ATEmix (inhalation-gas)       | 5633 mg/l   |
| ATEmix (inhalation-dust/mist) | 5 mg/l      |
| ATEmix (inhalation-vapor)     | 30 mg/l     |

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Ecotoxicity effects

Contains 0 % of components with unknown hazards to the aquatic environment

| Chemical name                  | Algae/aquatic plants | Fish                                           | Toxicity to microorganisms | Crustacea |
|--------------------------------|----------------------|------------------------------------------------|----------------------------|-----------|
| Hydrochloric acid<br>7647-01-0 |                      | 282: 96 h Gambusia affinis<br>mg/L LC50 static |                            |           |

### Persistence and Degradability

No information available.

### Bioaccumulation

No information available.

### Other Adverse Effects

## 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 |
|--------------------------------|-----------------------------------|
| Hydrochloric acid<br>7647-01-0 | Toxic<br>Corrosive<br>Reactive    |

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

### RID

|                            |                                            |
|----------------------------|--------------------------------------------|
| 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

**ADR**

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

**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  
 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*

**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 % |
|-------------------------------|-----------|----------|-------------------------------|
| Hydrochloric acid - 7647-01-0 | 7647-01-0 | 10       | 1.0                           |

**SARA 311/312 Hazard Categories**

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

**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 |
|--------------------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Hydrochloric acid<br>7647-01-0 | 5000 lb                     |                        |                           | 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                                         |
|--------------------------------|--------------------------|------------------------------------|--------------------------------------------|
| Hydrochloric acid<br>7647-01-0 | 5000 lb                  | 5000 lb                            | RQ 5000 lb final RQ<br>RQ 2270 kg final RQ |

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

This product contains the following Proposition 65 chemicals:

| Chemical name                             | California Prop. 65                              |
|-------------------------------------------|--------------------------------------------------|
| Nickel - 7440-02-0                        | Carcinogen                                       |
| Vanadium pentoxide - 1314-62-1            | Carcinogen                                       |
| Mercury - 7439-97-6                       | Developmental                                    |
| Arsenic - 7440-38-2                       | Carcinogen                                       |
| Lead nitrate - 10099-74-8                 | Carcinogen                                       |
| Cadmium and compounds (as Cd) - 7440-43-9 | Carcinogen<br>Developmental<br>Male Reproductive |

**U.S. State Right-to-Know Regulations**

| Chemical name                  | New Jersey | Massachusetts | Pennsylvania |
|--------------------------------|------------|---------------|--------------|
| Hydrochloric acid<br>7647-01-0 | X          | X             | X            |

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

Revision Date 10-Aug-2022

**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