

## Material Safety Data Sheet

### Section 1. Product and Company Identification

Product Identification: CCV-2  
MSDS Number: CCV-2  
Company Identification: High-Purity Standards  
P.O. Box 41727  
Charleston, SC 29423  
Telephone: (843) 767-7900  
FAX: (843) 767-7906  
In case of emergency call INFOTRAC: 800-535-5053

### Section 2. Chemical Composition

Component	CAS/EINECS Registry #	Percent Concentration	ACGIH TLV	OSHA PEL
Antimony	7440-36-0/ 231-146-5	0.02	0.5 mg/m <sup>3</sup>	0.5 mg/m <sup>3</sup>
Tin	7440-31-5/ 231-141-8	0.02	2 mg/m <sup>3</sup>	2 mg/m <sup>3</sup>
Titanium	7440-32-6/ 231-142-3	0.02	Not Available	Not Available
Hydrochloric Acid	7647-01-0/ 231-595-7	15	C 5ppm C 7 mg/m <sup>3</sup>	C 5ppm C 7 mg/m <sup>3</sup>
Water, deionized	7732-18-5/ 231-791-2	Balance	Not Available	Not Available

### Section 3. Hazard Identification

Emergency Overview: Corrosive. Cause irritation to areas of contact. Wash areas of contact with water for at least 15 minutes. If ingested, do not induce vomiting. Dilute with water and call a physician.

Target Organs: Eyes, skin, respiratory system.

Skin/eye Contact: Liquid causes burns to skin and eyes.

Inhalation: May cause irritation.

Ingestion: Cause nausea, vomiting, and diarrhea.

### Section 4. First Aid Measures

Inhalation: Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen.

Skin/eye Contact: Flush eyes with plenty of water for at least 15 minutes. Remove contaminated shoes and clothing. Rinse affected area with large amount of water followed by washing the area with soap and water. Call a physician.

Ingestion: CALL A PHYSICIAN. If swallowed rinse mouth, do NOT induce vomiting, If conscious give large quantities of water or milk.

### Section 5. Fire Fighting Measures

Fire & Explosion hazards: Hydrochloric acid is a negligible fire hazard when exposed to heat and/or flames. Hydrochloric acid may react with the evolution of heat on contact with water; the acid may release toxic, corrosive, flammable, or explosive gases.

Extinguishing Media: Use regular dry chemical, carbon dioxide, water, or regular foam.

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Specific Methods: Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode.

#### Section 6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Cover the spill with sodium bicarbonate or a soda ash-slaked lime mixture (50:50) to neutralize the acid. Place the neutralized material into containers suitable for eventual disposal, reclamation, or destruction. Always dispose of in accordance with local regulations.

#### Section 7. Handling and Storage

Store in a cool, dry, ventilated storage area with acid resistant floors and good drainage. Keep out of direct sunlight and away from heat, water, and incompatible materials. When diluting, the acid should always be added slowly to water and in small amounts. Refer to Section 8 for personal handling instructions. Wash exposed skin area thoroughly after handling.

#### Section 8. Exposure Controls and Personal Protection

Engineering Controls: Local exhaust ventilation is generally preferred.

Respiratory Protection: Ensure good ventilation/exhaust in work area.

Personal Protection: Wear proper gloves, safety glasses with side shields, lab coat/apron.

#### Section 9. Physical and Chemical Properties

Molecular Weight: N/A

Boiling Point: Approximately 100°C

Freezing Point: N/A

Vapor Pressure (mm): N/A

Vapor Density (air+1): N/A

Specific Gravity (H<sub>2</sub>O = 1): N/A

Solubility in H<sub>2</sub>O: Complete

Appearance: Clear, colorless liquid

Odor: Acrid

pH: <1

#### Section 10. Stability and Reactivity

Stability Indicator: YES

Conditions to Avoid: Metals, hydroxides, carbonates, cyanides.

Incompatibles: Strong oxidizing agents.

Hazardous Decomposition Products: When heated to decomposition, emits toxic hydrochloric acid fumes and will react with water or steam to produce heat and toxic and corrosive fumes. Thermal oxidative decomposition produces toxic chlorine fumes and explosive hydrogen gas.

Hazardous Polymerization: Will not occur.

#### Section 11. Toxicological Information

May affect skin, mucous membranes and eyes. Swallowing may lead to a negative effect on mouth and throat and to the risk of perforation or the corrosion of esophagus and stomach.

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RTECS#:

HCl - MW4025000

Sb - CC4025000

Sn - XP7320000

Ti XR1700000

Toxicity Data:

LD<sub>50</sub> Oral, Rabbit: (Hydrochloric Acid) 900 mg/kg, LC<sub>LO</sub>, inhalation, human: (Hydrochloric Acid) 3000 ppm/5 minutes, no toxic effects noted; LD<sub>50</sub> Oral, Rat: (Antimony) 7g/kg; TD<sub>LO</sub> Implant, Rat: (Sn) 395 gm/kg.

#### Section 12. Ecological Information

Ecotoxicological information: Do not allow material to reach ground water, water bodies, or sewage system. Hydrochloric acid has a slight acute and chronic toxicity to aquatic life.

#### Section 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations.

#### Section 14. Transport Information

D.O.T. Classification: Hazardous by IATA regulations (based on concentration of acid).  
D.O.T. Shipping Name: Corrosive liquid, Acidic, Inorganic, n.o.s. (Hydrochloric Acid)  
D.O.T. Hazard Class: 8  
U.N./N.A. Number: 3264  
Packing Group: III  
D.O.T. Label: Corrosive (8)

#### Section 15. Regulations (Not meant to be all inclusive-selected regulation listed)

TSCA Status: Components of this solution are listed on the TSCA Inventory.  
RCRA Status: No  
SARA: Subject to the reporting requirements of Section 313 or SARA Title III and of 40 CFR 372  
Risk Phrases: R20/21/22/25/34 Harmful by inhalation, skin contact, or if swallowed. Toxic if swallowed. Cause burns.  
Safety Phrases: S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.  
WHMIS Information (Canada): E: Corrosive

#### Section 16. Other Information

HPS products are intended for laboratory use only. All products should be handled and used by trained professional personnel only. The responsibility for the safe handling and use of these products rest solely with the buyer and/or user. The MSDS was prepared carefully and represents the best data currently available to us; however, HPS does not certify the data on the MSDS. Certified values for this material are given only on the Certificate of Analysis.

Theodore C. Rains, Ph.D.