

# Material Safety Data Sheet

## Chlorine Dioxide Electrolyte

### Section 1: Product Identification

Date Effective..... February 7, 2003 (most recent revision)  
Chemical Name/Synonyms... Aqueous hydrogen chloride, Hydrochloric acid, Potassium chloride  
Product or Trade Name.... Chlorine Dioxide probe electrolyte  
CAS #..... 7647-01-0, 7447-40-7, 7732-18-5  
Chemical Formula..... HCl, KCl, H<sub>2</sub>O

### Section 2: Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Hydrogen Chloride	7647-01-0	<.5%	Yes
Potassium Chloride	7447-40-7	<1.0%	Yes
Water	7732-18-5	>98%	No

### Section 3: Hazard Identification

**Emergency Overview:** POISON! DANGER! CORROSIVE!  
LIQUID MAY CAUSE SEVERE BURNS TO BODY TISSUE. MAY BE FATAL IF SWALLOWED.

### Potential Health Effects

**Inhalation:** Under normal use, no fumes exist for inhalation.  
**Ingestion:** Corrosive! Swallowing can cause immediate pain and burns of the mouth, esophagus, throat, and gastrointestinal tract. May cause nausea, vomiting, and diarrhea. Swallowing may be fatal.  
**Skin Contact:** Corrosive! Can cause redness, pain, and severe skin burns.  
**Eye Contact:** Corrosive! Contact may cause severe burns and permanent eye damage.  
**Chronic Exposure:** No information found  
**Aggravation of Pre-existing Conditions:** Persons with pre-existing skin disorders or eye disorders or kidney disorders may be more susceptible to the effects of this substance.

### Section 3: First Aid Measures

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.  
**Ingestion:** Do not induce vomiting! Give large quantities of water or milk if available. Never give anything by mouth to an unconscious person. Get medical attention immediately.  
**Skin Contact:** In case of skin contact, immediately flush skin with plenty of water.  
**Eye Contact:** Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

### Section 4: Fire and Explosion Data

**Fire:** Not considered to be a fire hazard.  
**Explosion:** Not considered to be an explosion hazard.  
**Fire Extinguishing Media:** Use any means suitable for extinguishing surrounding fire.  
**Fire Fighting Instructions:** Wear self-contained breathing apparatus and full protective clothing.

### Section 6: Accidental Release Measures

Wear appropriate personal protective equipment as specified in Section 8. Contain and recover liquid when possible. Neutralize with alkaline material (e.g. soda ash, lime) then absorb with an inert material (e.g. vermiculite, dry sand, earth, paper towels) and place in a suitable container for disposal. US Regulations (CERCLA) require reporting spills and releases to soil, water, and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

### Section 7 Handling and Storage

Keep in tightly closed container, store in cool, dry, ventilated storage area with acid resistant floors and good drainage. Protect from physical damage. Keep out of Keep away from heat and incompatible materials. Do not wash out container and use it for other purposes.

### Section 8: Exposure Controls/ Personal Protection

**Skin Protection:** Rubber or neoprene gloves and clean body-covering clothing.  
**Eye Protection:** Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

**Section 9 Physical and Chemical Properties**

**Appearance:** Colorless liquid  
**Odor:** Odorless  
**Solubility:** 28.1g/100g for KCl and infinite for HCl  
**Density:** 1.987 for KCl and 1.18 for HCl  
**pH:** 1.3  
**%Volatiles by volume @ 21C (70F):** <5%  
**Boiling Point:** No information found.  
**Melting Point:** No information found  
**Vapor Density (Air=1):** No information found  
**Vapor Pressure (mmHg):** No information found  
**Evaporation Rate (BuAc=1):** No information found

**Section 10. Stability and Reactivity**

**Stability:** Stable under ordinary conditions of use and storage.  
**Hazardous Decomposition Products:** When heated to decomposition, emits toxic hydrogen chloride fumes.  
**Hazardous Polymerization:** Will not occur  
**Incompatibilities:** A strong mineral acid, the solution is incompatible with many substances and highly reactive with strong bases, metals, metal oxides, hydroxides, amines, carbonate and other alkaline materials. Incompatible with cyanides, sulfides, sulfites, and formaldehyde.  
**Conditions to Avoid:** Heat

**Section 11. Toxicological Information**

Inhalation rat LC50:3124 ppm/1H; oral rabbit LD50:900 mg/kg (Hydrochloric acid concentrated); investigated as a tumorigen, mutagen, reproductive effector.

-----\Cancer Lists \-----

Ingredient		---NTP Carcinogen---			IARC Cat	
		Known	Anticipated			
Hydrogen Chloride (7647-01-0)	No	No	No	3		
Water (7732-18-5)		No	No	None		None
Potassium Chloride (7447-40-7)	No	No	No	None		

**Section 12. Ecological Information**

**Environmental Fate:** When released into soil, this material is not expected to biodegrade. When released into the soil, this material may leach into groundwater.  
**Environmental Toxicity:** This material is expected to be toxic to aquatic life.

**Section 13 Disposal Considerations**

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal 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. Dispose of container and unused contents in accordance with federal, state, and local requirements.

**Section 14 Transport Information**

Not regulated

**Section 15 Other Information**

**NEPA Rating:** health:3 Flammability:0 Reactivity:0

**Label Hazard Warning:**

POISON!DANGER!CORROSIVE. MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT.

**Label Precautions:** Do not get in eyes, on skin, or on clothing. Use only with adequate ventilation. Wash thoroughly after handling. Store in a tightly closed container.

**Label First Aid:** In case of contact, immediately flush eyes or skin with plenty of water. If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention for any breathing difficulty.

**Product Use:** Electrolyte for Chlorine Dioxide Probe.

**Section 16 Regulatory Information**

-----\Chemical Inventory Status - Part 1\-----

Ingredient		TSCA	EC	Japan	Aust	
Hydrogen Chloride (7647-01-0)	Yes	Yes	Yes		Yes	
Water (7732-18-5)		Yes	Yes	Yes		Yes
Potassium Chloride (7447-40-7)	Yes	Yes	Yes		Yes	

-----\Chemical Inventory Status - Part 2\-----

Ingredient		Korea	DSL	NDSL	Phil.	
Hydrogen Chloride (7647-01-0)	Yes	Yes	No		Yes	
Water (7732-18-5)		Yes	Yes	No		Yes
Potassium Chloride (7447-40-7)	Yes	Yes	No		Yes	

-----\Federal, State, & International Regulations Part 1\-----

Ingredient		-SARA 302-		---SARA 313---		Chemical Catg.
		RQ	TPQ	List		
Hydrogen Chloride (7647-01-0)	5000	500*	Yes		No	
Water (7732-18-5)		No	No	No		No
Potassium Chloride (7447-40-7)	No	No	No		No	

-----\Federal, State, & International Regulations Part 2\-----

Ingredient		CERCLA	261.33	-RCRA-	8 (d)	---TSCA---
Hydrogen Chloride (7647-01-0)	5000		No		No	
Water (7732-18-5)		No		No		No
Potassium Chloride (7447-40-7)	No		No		No	

Chemical Weapons Convention: No TSCA12(b): No CDTA: No  
 SARA 311/312: Acute: Yes Chronic: No Fire: No Pressure: No  
 Reactivity: No (Mixture/Liquid)

Australian Hazchem Code: None allocated  
 Poison Schedule: None allocated  
 WHMIS:

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

**Revision Information:**

No changes

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