



**Keavy's Corner LLC**  
12413 US Highway 98  
Sebring FL 33876

THIS ITEM SHIPS VIA GROUND ONLY  
LIMITED QUANTITY  
CONSUMER COMMODITY

**PHONE: + 1 863 304 1004**

## 1. Chemical Product And Company Information

Chemical Name	Trade Names	Formula	CAS#	UN#
Hydrochloric Acid 4% w/w	Muratic Acid	HCl	7647-01-0	UN 1789

**Uses:** Consumer  
Commodity

For the onsite generation of Chlorine Dioxide

### Manufacturer/Distributor

KVLab- Keavys Corner LLC 12413 US Highway 98 Sebring FL 33876  
Phone: 863 304 1004

## 2. Composition and Product Information

### Concentration by Weight

<b>Hydrochloric Acid</b>	<b>Water</b>
4%	96%
CAS# 7647-01-0	CAS# 7732-18-5

## 3. Hazard Identification

### Emergency Overview:

A clear, mostly odorless solution that can be hazardous in case of skin contact (irritant), of eye contact (irritant).  
Hazardous in case of ingestion .

### Routes of Entry:

Inhalation, Skin Contact/absortion, Eye Contact or Ingestion

### Symptoms of Exposure:

**Inhalation:** Aerosols and mists from solutions may cause mild to severe irritation of the nose and throat. Overexposure could cause coughing, sneezing, and labored breathing.

**Skin Contact/absortion:** Can cause irritation of the skin. Acid may cause allergic contact dermatitis with repeated contact in sensitive individuals. Prolonged Contact can cause burns.

**Eye Contact:** This solution can cause severe irritation to the eyes, with symptoms that include redness, tearing, and pain. Concentrated solutions may be corrosive to the eyes and cause corneal ulcerations..

**Ingestion:** May cause gastrointestinal irritation, with symptoms including nausea, diarrhea, vomiting, and abdominal pain

## 4 . First Aid Measures

**Skin** Wash the affected area with soap and water. If irritation develops, get medical attention.

**Eyes:** Flush with water for a minimum of 15 minutes. If irritation persists seek medical attention.

**Inhalation:** If irritation or other symptoms are experienced, remove victim to fresh air. If symptoms persist get medical attention.

**Ingestion: DO NOT INDUCE VOMITING. DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.** Otherwise rinse mouth with water , Get medical attention immediately

## 5. Fire Fighting Measures

**Conditions Of Flammability:** Does not burn

**Means To Extinguish:** Not applicable

**Hazardous Combustion Products:** None, does not burn.

**Flash Point & Method:** Not applicable

**Upper Flammability Limit:** Not applicable

**Lower Flammability Limit:** Not applicable

**Auto-Ignition Temperature:** Not applicable

**Mechanical Impact Sensitivity:** Not applicable (water solution)

**Static Discharge Sensitivity:** Not applicable (water solution)

### Special Remarks on Fire Hazards:

Non combustible. Calcium carbide reacts with hydrogen chloride gas with incandescence. Uranium phosphide reacts with hydrochloric acid to release spontaneously flammable phosphine. Rubidium acetylene carbides burns with slightly warm hydrochloric acid. Lithium silicide in contact with hydrogen chloride becomes incandescent. When dilute hydrochloric acid is used, gas spontaneously flammable in air is evolved. Magnesium boride treated with concentrated hydrochloric acid produces spontaneously flammable gas. Cesium acetylene carbide burns hydrogen chloride gas. Cesium carbide ignites in contact with hydrochloric acid unless acid is dilute. Reacts with most metals to produce flammable Hydrogen gas. (Hydrochloric Acid)

### Special Remarks on Explosion Hazards:

Hydrogen chloride in contact with the following can cause an explosion, ignition on contact, or other violent/vigorous reaction: Acetic anhydride  $AgClO + CCl_4$  Alcohols + hydrogen cyanide, Aluminum Aluminum-titanium alloys (with HCl vapor), 2-Amino ethanol, Ammonium hydroxide, Calcium carbide  $Ca_3P_2$  Chlorine + dinitroanilines (evolves gas), Chlorosulfonic acid Cesium carbide Cesium acetylene carbide, 1,1-Difluoroethylene Ethylene diamine Ethylene imine, Fluorine,  $HClO_4$  Hexalithium disilicide  $H_2SO_4$  Metal acetylides or carbides, Magnesium boride, Mercuric sulfate, Oleum, Potassium permanganate, beta-Propiolactone Propylene oxide Rubidium carbide, Rubidium, acetylene carbide Sodium (with aqueous HCl), Sodium hydroxide Sodium tetraselenium, Sulfonic acid, Tetraselenium tetranitride,  $U_3P_4$  , Vinyl acetate. Silver perchlorate with carbon tetrachloride in the presence of hydrochloric acid produces trichloromethyl perchlorate which detonates at 40 deg. C

## 6. Accidental Release Measures

**Leak Or Spill Procedures :** Contain spills. Collect into clean high density polyethylene containers. Use lime or sodium bicarbonate to neutralize acid. Wash away residues with large amounts of water.

## 7. Handling Storage

**Handling Procedures And Equipment :** Use corrosion resistant tools and equipment. Avoid skin or clothing contact.

**Storage:** Store in a cool, dry area

**KEEP AWAY FROM BASES AND INCOMPATIBLE MATERIALS.** (See sec 5)

## 8. Exposures Controls / Personal Protection

**Protective Equipment:** Chemical safety goggles. Butyl rubber or neoprene gloves. Dust/mist mask in dusty or misty locations. Wear waterproof or washable outer clothing. Remove contaminated clothing.

**Engineering Controls:** Use in well ventilated area.

## 9. Physical And Chemical Properties

**State:** Liquid

**Odor:**None

**Boiling Point:** Depends on concentration 104°C

**Melting Point:** Not applicable

**Freezing Point:** Depends on concentration 0°C

**pH:** .1-2

**Appearance:** Clear Solution, pale yellow

**Specific Gravity:**1.24 @ 25°C

## 10. Stability And Reactivity

**Chemical Stability:**Stable in itself ,may ferment if left standing, may be reactive with bases.

**Reactivity :** Avoid heat, moisture and incompatible materials.

**Incompatible Substances:** Metal Nitrates, Strong Bases and Oxidizers., Corrosive to most metals

**Hazardous Decomposition Products:** Carbon Dioxide and Carbon Monoxide.

## 11. Toxicological Information

**Inhalation:**Aerosols and mists from solutions may cause mild to severe irritation of the nose and throat. Overexposure could cause coughing, sneezing, and labored breathing.

**Skin Contact/absortion:** Can cause irritation of the skin. Acid may cause allergic contact dermatitis with repeated contact in sensitive individuals. Prolonged Contact can cause burns.

**Eye Contact:** This solution can cause severe irritation to the eyes, with symptoms that include redness, tearing, and pain. Concentrated solutions may be corrosive to the eyes and cause corneal ulcerations..

**Ingestion:** May cause gastrointestinal irritation, with symptoms including nausea, diarrhea, vomiting, and abdominal pain

**LD50 37% HCl w/w:** 700 mg/kg (rat)

**LD50 37% HCl w/w** 5010mg/kg (Dormant Rabbit).

**LC50:** Not Available

**Exposure Limits:** Not available

**Irritancy:** Severe (corrosive)

**Sensitization:** Not reported as a human sensitizer.

**Carcinogenicity:** Does not appear in reference lists.

**Teratogenicity & Mutagenicity:** Does not apply to this product. No effects.

**Reproductive Toxicology :** Does not appear in reference lists.

**Toxicological Synergism :** Does not appear in reference lists.

## 12. Ecological Information

**Ecological Information:** Not Established. May be harmful to plant growth.

Low potential for bioaccumulation.

**Biodegradability:** Naturally occurring Biodegradable Chemical. No Toxic products.

**LC50 37% HCl w/w:** (fish1) 282 mg/l (LC50; 96 h)

**LC50 37% HCl w/w:** (daphnia1) 56 mg/l (EC50; 72 h)

## 13. Disposal Considerations

**Disposal Considerations** : Disposal of all wastes must be done in accordance with municipal, provincial and federal regulations. Avoid environmental release.

## 14. Transportation Information

**PROPER SHIPPING NAME:** Hydrochloric Acid 4%

**UN NUMBER:** 1789

**CAS NUMBER:** 7647-01-0

**HAZMAT CLASS:** Class 8 Corrosive

**PACKAGING CLASS:** II

## 15. Regulatory Information

(Hydrochloric Acid, 4% w/w)

**USA Regulations**

**SARA Section** 311/312 Hazard Classes

**Canada**

**WHMIS Classification** Class E - Corrosive Material

## 16. Other Information

**Prepared By:** Steve Pardee - 2018

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