

## 1. Product and Company Identification

www.rxmarine.com

Product Name RXSOL-22-2205-210  
Product Type Muriatic Acid

### Company Details:

RX MARINE INTERNATIONAL  
105, A wing , BSEL , TECH PARK.  
VASHI ,NEW BOMBAY 400703 INDIA

Phone +91 22 65113333 / 5555 / 9999 / 27611360  
Fax +91 22 2781 1318 :::AOH :0091 9821214367  
Email [mail@rxmarine.com](mailto:mail@rxmarine.com)

## 2. Composition / Information on ingredients

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Ingredient	CAS No	Percent	Hazardous
Chlorous Acid	7647-01-0	32 - 38%	Yes
Water	7732-18-5	62 - 68%	No

## 3. Hazards Identification

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### Emergency Overview

DANGER! CORROSIVE. LIQUID AND MIST CAUSE SEVERE BURNS TO ALL BODY TISSUE. MAY BE FATAL IF SWALLOWED OR INHALED.

SAF-T-DATA(tm) Ratings (Provided here for your convenience)

Health Rating	3 - Severe (Poison)
Flammability Rating	0 - None
Reactivity Rating	1 - Slight
Contact Rating	4 - Extreme (Corrosive)
Lab Protective Equip	GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES
Storage Color Code	White (Corrosive)

Potential Health Effects Health hazards given on this data sheet apply to concentrated solutions of hydrochloric acid. Hazards of dilute solutions may be reduced, depending upon the concentration. Degree of hazard for these reduced concentrations is not currently addressed in the available literature.

Inhalation	Corrosive! Inhalation of vapors can cause coughing, choking, inflammation of the nose, throat, and upper respiratory tract. In severe cases, pulmonary edema, circulatory failure, and death.
Ingestion	Corrosive! Swallowing hydrochloric acid can cause immediate pain and burns of the mouth, throat, esophagus and gas. May cause nausea, vomiting, and diarrhea, and in severe cases, death.
Skin Contact	Corrosive! Can cause redness, pain, and severe skin burns. Concentrated solutions cause deep ulcers and discolor skin.
Eye Contact	Corrosive! Vapors are irritating and may cause damage to the eyes. Contact may cause severe burns and permanent eye damage.
Chronic Exposure	Long-term exposure to concentrated vapors may cause erosion of teeth. Long term exposures seldom occur due to the corrosive properties of the acid.
Aggravation of Pre-existing Conditions	Persons with pre-existing skin disorders or eye problems or impaired respiratory function may be more susceptible to the effects of this substance.

## 4. First Aid Measures

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First aid procedures given apply to concentrated solutions. Exposures to dilute solutions may not require these extensive first aid procedures.

Inhalation	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
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Solubility	Infinitely soluble
Specific Gravity	ca. 1.3
pH	For solutions: 0.1 (1.0 N), 1.1 (0.1 N), 2.02 (0.01 N)
% Volatiles by volume @ 21C (70F)	100 (as water and acid)
Boiling Point	ca. 100C (ca. 212F)
Melting Point	ca. 0C (ca. 32F)
Vapor Density (Air=1)	Essentially the same as water.
Vapor Pressure (mm Hg)	Essentially the same as water.
Evaporation Rate (BuAc=1)	Essentially the same as water.

## 10. Stability and reactivity

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Stability	Stable under ordinary conditions of use and storage.
Hazardous Decomposition Products	When heated to decomposition, emits toxic hydrogen chloride fumes and will react with water or steam to produce corrosive fumes. Thermal oxidative decomposition produces toxic chlorine fumes and explosive hydrogen gas.
Hazardous Polymerization	Will not occur
Incompatibilities	A strong mineral acid, concentrated hydrochloric acid is highly reactive with strong bases, metals, metal oxides, hydroxides, carbonates and other alkaline materials. Incompatible with materials such as cyanides, sulfides, sulfites, and formaldehyde.
Conditions to Avoid	Heat, direct sunlight, incompatibles.

## 11. Toxicological information

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Muriatic acid: Inhalation rat LC50: 3124 ppm/1H; Oral rabbit LD50: 900 mg/kg. Investigated as a tumorigen, mutagen, reproductive effector. \Cancer Lists\NTP Carcinogen Ingredient Known Anticipated ARC Category Hydrogen Chloride (7647-01-0) No No 3 Water (7732-18-5) - No -None

## 12. Ecological information

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Environmental Fate	
For Muriatic Acid (Concentrated Solutions)	When released into the soil, this material is not expected to biodegrade. When released into the soil, this material may contaminate groundwater.
Environmental Toxicity	
For Muriatic Acid (Concentrated Solutions)	This material may be toxic to aquatic life. LC50 Shrimp: 100-300 ppm/48-hr/salt water; LC100 trout: 10 mg/l/24-hr; LC50 fish: 282 ppm/96-hr.

## 13. Disposal considerations

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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. Dispose of container and unused contents in accordance with federal, state and local requirements.

## 14. Transport information

[www.rxmarine.com](http://www.rxmarine.com)

Domestic (Land, D.O.T.)

UN			
Proper Shipping Name	HYDROGEN CHLORIDE SOLUTION		
UN NO.	1789		
Hazard Class	8	Packing Group	II
Information reported for product/size	210 L		

International (Water, I.M.O.)

Proper Shipping Name	HYDROGEN CHLORIDE SOLUTION
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International (Air, I.C.A.O.)	UN No.	1789		
	Hazard Class	8	Packing Group	II
	Information reported for product/size	210L		
	Proper Shipping Name	HYDROGEN CHLORIDE SOLUTION		
	UN No.	1789		
	Hazard Class	8	PackingGroup	II
	Information reported for product/size	20L		

**15. Regulatory information** [www.rxmarine.com](http://www.rxmarine.com)

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

Ingredient	TSCA	EC	Japan	Australia
Hydrogen Chloride (7647-01-0)			Yes	Yes
Water (7732-18-5)	Yes	Yes	Yes	Yes

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

--Canada--

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

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

-SARA 302- -----SARA 313-----

Ingredient	RQ	TPQ	List	Chemical Catg.
Hydrogen Chloride (7647-01-0)	5000	500*	Yes	No
Water (7732-18-5)	No	No	No	No

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

-RCRA- -TSCA-

Ingredient	CERCLA	261.33	8(d)
Hydrogen Chloride (7647-01-0)	5000	No	No

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Water (7732-18-5) No No No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: Yes

SARA 311/312: Acute: Yes Chronic: Yes 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.

## 16. Other information

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Text of R and S phrase codes used in this safety data sheet:- R34: Causes burns; R37: Irritating to respiratory system. The information provided about the product on this Safety Data Sheet has been compiled from knowledge of the individual constituents. The data given here is based on current knowledge and experience. This Safety Data Sheet describes the product in terms of safety requirements and does not signify any warranty with regard to the product's properties. The data given here only applies when product used for proper application(s). The product is not sold as suitable for other applications - usage in such may cause risks not mentioned in this sheet. Do not use for other application(s) without seeking advice from manufacturer.

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