

# MATERIAL SAFETY DATA SHEET

Hydrochloric Acid 1.0 Normal Solution

## SECTION 1 . Product and Company Identification

Product Name and Synonym: Hydrochloric Acid 1.0 Normal Solution

Product Code: 275-08-2

Material Uses:  
Manufacturer: OFI Testing Equipment, Inc.  
11302 Steeplecrest Drive  
Houston, TX 77065 USA  
Phone: (713) 880-9885  
Fax: (713) 880-9886

Entry Date : 9/8/2009

Print Date: 7/31/2010

24 Hour Emergency Assistance : Chemtrec 800-424-9300  
Canutec 613-996-6666

Health:	3			
Flammability:	0			
Reactivity:	0			
Hazard Rating:				
Least	Slight	Moderate	High	Extreme
0	1	2	3	4
NA = Not Applicable		NE = Not Established		

## SECTION 2 HAZARD IDENTIFICATION

May be harmful if swallowed. May cause irritation. Avoid breathing vapors, or dusts. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling.

Emergency Overview:Poison! Danger! Corrosive. Liquid and mist cause severe burns to all body tissue. May be fatal if swallowed or inhaled.

Inhalation:Corrosive! Inhalation of vapors can cause coughing, choking, inflammation, of the nose, throat, and upper respiratory tract, and 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 gastrointestinal tract. May cause nausea, vomiting, and diarrhea, and in severe cases, death.

Skin:Corrosive! Can cause redness, pain, and severe skin burns. Concentrated solutions cause deep ulcers and discolor of skin.

Eye Contact:Corrosive! Vapors are irritating and may cause damage to 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.

Aggravated by Exposure:Persons with pre-existing skin disorders or eye disease may be more susceptible to the effects of this substance.

## SECTION 3 MIXTURE COMPONENTS

SARA 313	Component	CAS Number	Percent Comp.	Dimension	Exposure Limits
<input checked="" type="checkbox"/>	Hydrochloric Acid	CAS# 7647-01-0	~8.6%	V/V	OSHA PEL (C) 5 ppm, (C) 7 mg/m <sup>3</sup>
<input type="checkbox"/>	Water, Deionized ASTM Type II	CAS# 7732-18-5	Balance	V/V	None Established

## SECTION 4 FIRST AID MEASURES

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May be harmful if swallowed. May cause irritation. Avoid breathing vapors, or dusts. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling.

FIRST AID: SKIN: Wash exposed area with soap and water. If irritation persists, seek medical attention.

EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen

INGESTION: Give several glasses of milk or water. Vomiting may occur spontaneously, but DO NOT INDUCE! Never give anything by mouth to an unconscious person.

### SECTION 5 FIRE FIGHTING MEASURES

Fire Extinguisher Type: Any means suitable for extinguishing surrounding fire

Fire / Explosion Hazards: None

Fire Fighting Procedure: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

### SECTION 6 ACCIDENTAL RELEASE MEASURES

Absorb spill with inert material, then place in a chemical waste container. Neutralize with a weak base.

Dilute with Water and Flush to Sewer if Local Ordinances Allow, Otherwise, 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 7 HANDLING AND STORAGE

Store in a cool, dry, well-ventilated place away from incompatible materials. Wash thoroughly after handling. Do not reuse containers. Keep out of direct sunlight and away from heat, water and incompatible materials.

### SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: None required

Ventilation

Local Exhaust

Mechanical

Protective Gloves: Wear appropriate gloves to prevent skin exposure

Eye Protection: Splash Goggles

Other Protective Equipment: Wear appropriate clothing to prevent skin exposure, impervious boots, apron or coveralls as needed.

### SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Melting Point: information Percent Volatile by Volume: > 99%

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Boiling Point:	not available	Evaporation Rate	Information not available
Vapor Pressure:	Information not available	Evaporation Standard	
Vapor Density:	Information not available	Auto Ignition Temp	Not applicable
Solubility in Water:	Soluble	Lower Flamm. Limit in Air	Not applicable
Appearance /Odors:	Clear colorless liquid/no odor	Upper Flamm. Limit in Air	Not applicable
Flash Point:	Information not available		
Specific Gravity:	~ 1		

**SECTION 10 STABILITY AND REACTIVITY INFORMATION**

Stability:	Stable
Conditions to Avoid:	Avoid Light
Materials to Avoid:	Halides, ammonia, phosphates, bases
Hazardous Decomposition Products:	HCL Fumes, Chlorine
Hazardous polymerization:	Will Not Occur
Conditions to Avoid:	None known

**SECTION 11 Toxicological Information**

Carcinogenic References: Hydrogen Chloride - IARC Category 3, NTP Carcinogen - Known: No

**SECTION 12 Ecological Information**

Environmental Fate:When Released into the 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**

Dilute with water and flush to sewer if local ordinances allow, otherwise, 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**

DOT Classification: Hydrochloric acid solution, 8, UN1789, PG II

DOT Regulations may change from time to time. Please consult the most recent D.O.T. regulations.

**SECTION 15 Regulatory Information**

Chemical Inventory Status –  
Part 1 :Ingredient  
Hydrogen Chloride (7647-01-0)  
Water (7732-18-5)

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TSCA Yes YES  
EC Yes YES  
Japan YES YES  
Australia Yes YES

Chemical Inventory Status –  
Part 2:Ingredient  
Hydrogen Chloride (7647-01-0)  
Water (7732-18-5)  
Korea Yes YES  
DSL Yes YES  
NDSL No NO  
Phil. Yes YES

Federal, State & International Regulations –  
Part 1: Ingredient.  
Hydrogen Chloride (7647-01-0)  
Water (7732-18-5)  
RQ 5000 No  
TPQ 500 No  
List YES NO  
Chemical Catg No NO

Federal, State &  
International Regulations –  
Part 2:Ingredient  
Hydrogen Chloride (7647-01-0)  
Water (7732-18-5)  
CERCLA 5000 NO  
261.33 No NO  
8(d) No NO

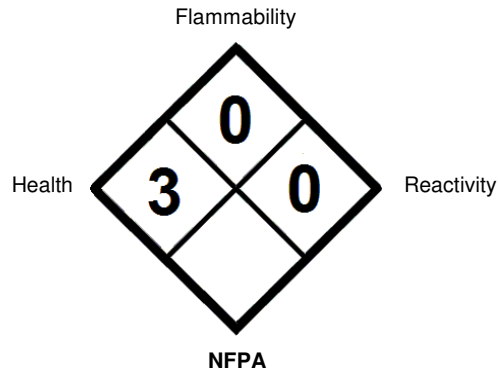
Chemical Weapons Convention: No  
TSCA 12 (b):No  
CDTA: YES MIXTURE/LIQUID  
SARA 311/312: Acute:YES  
Chronic: YES  
Fire: No  
Pressure: No  
Reactivity: No  
Australian Hazchem Code: 2R  
Poison Schedule:NONE ALLOCATED

### SECTION 16

### Additional Information

Poison! Danger! Corrosive! Liquid and mist cause severe burns to all body tissue. May be fatal if swallowed or inhaled. Conditions aggravated/target organs: Corrosive! Persons with preexisting skin, eye and respiratory disorders may be more susceptible. Acute: Severe irritation or burns to skin, eyes, respiratory tract and digestive tract. Chronic: Dermatitis, erosion of teeth, eye damage. Ingestion may cause immediate pain and burns of the mouth, throat, esophagus and GI Tract. May cause nausea, vomiting and diarrhea and in severe cases, death.

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Revisions

	0	
7/30/2010	0.1	updated msds to 16 section from 10 section msds. STN

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