

MATERIAL SAFETY DATA SHEET

Hydrochloric Acid 5.0 Normal Solution

SECTION 1 . Product and Company Identification

Product Name and Synonym: Hydrochloric Acid 5.0 Normal Solution

Product Code: 275-12

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

Entry Date : 5/12/2010

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
0	1
Moderate	High
2	3
Extreme	4
0	1
2	3
4	0
NA = Not Applicable NE = Not Established	

SECTION 2 HAZARD IDENTIFICATION

Causes severe irritation and burns. May be harmful if swallowed. Avoid breathing vapor or dust. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

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	40 - 50%	V/V	OSHA PEL (C) 5 ppm, (C) 7 mg/m ³
<input type="checkbox"/>	Water, Deionized ASTM Type II	CAS# 7732-18-5	Balance	V/V	None Established

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SECTION 4 FIRST AID MEASURES

Causes severe irritation and burns. May be harmful if swallowed. Avoid breathing vapor or dust. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

FIRST AID: SKIN: Remove contaminated clothing. 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: Thermal decomposition produces highly toxic fumes.
- 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.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

- Respiratory Protection: NIOSH/MSHA-approved respirator
- Ventilation
- Local Exhaust
 - Mechanical
- Protective Gloves: NIOSH Approved Gloves
- Eye Protection: Goggles and Face Shield
- Other Protective Equipment: Impervious gloves, apron and coveralls as needed.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Melting Point: Information Percent Volatile by Volume: > 95

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Boiling Point:	not available 101 - 103° C	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 liquid, slight HCl odor	Upper Flamm. Limit in Air	Not applicable
Flash Point:	N/A		
Specific Gravity:	Information not available		

SECTION 10 STABILITY AND REACTIVITY INFORMATION

Stability:	Stable
Conditions to Avoid:	Avoid contact with incompatible materials.
Materials to Avoid:	Oxidizing agents, metals, bases.
Hazardous Decomposition Products:	HCl fumes, hydrogen, chlorine, ClOx
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

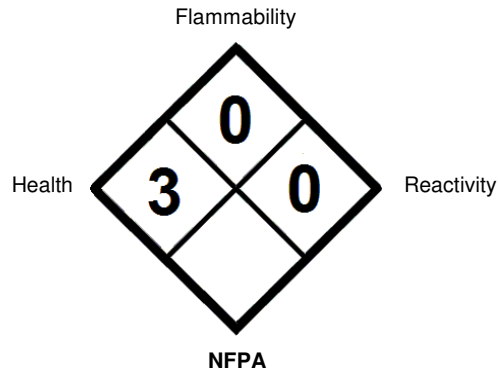
Chemical Weapons Convention: No
TSCA 12 (b):No
CDTA: YES MIXTURE/LIQUID
SARA 311/312: Acute:YES
Chronic: YES
Fire: No
Pressure: No
Reactivity: No
Australian Hazchem Code: 2R
Poison Schedule:NONE ALLOCATED

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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