

MATERIAL SAFETY DATA SHEET



Hydrochloric Acid 6.0 Normal

SECTION 1 . Product and Company Identification

Product Name and Synonym: Hydrochloric Acid 6.0 Normal
Product Code: BDH3204
Material Uses:
Manufacturer: Aqua Solutions, Inc
6913 Hwy 225
Deer Park, TX 77536
(281) 479-2569
Entry Date : 4/5/2010
Print Date: 7/20/2010
24 Hour Emergency Assistance : Chemtrec 800-424-9300
Canutec 613-996-6666

Health:	2			
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

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

Physical state: Liquid (Fuming liquid)
Odor: Pungent, Irritating odor

OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Emergency overview:

DANGER!
POISON!

CAUSES RESPIRATORY TRACT, EYE AND SKIN BURNS
HARMFUL IF INHALED, ABSORBED THROUGH SKIN OR SWALLOWED
CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS:
LUNGS, RESPIRATORY TRACT, SKIN, EYE, LENS OR CORNEA

Do not ingest. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

Routes of entry: Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects:

Eyes: Corrosive to the eyes.
Skin: Toxic in contact with skin. Corrosive to the skin.
Inhalation: Toxic by inhalation. Corrosive to the respiratory system.
Ingestion: Toxic if swallowed. May cause burns to mouth, throat and stomach.
Carcinogenic effects: No known significant effects or critical hazards.
Mutagenic effects: No known significant effects or critical hazards.
Teratogenicity/Reproductive toxicity: No known significant effects or critical hazards.

Medical conditions aggravated by overexposure: Repeated skin exposure can produce local skin destruction or dermatitis. Repeated or prolonged exposure to the substance can produce lung damage. Repeated or prolonged contact with spray or mist may produce chronic eye

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irritation and severe skin irritation. Repeated or prolonged exposure to the substance can produce target organs damage.

See toxicological information (section 11).

SECTION 3 MIXTURE COMPONENTS

SARA 313	Component	CAS Number	Percent Comp.	Dimension	Exposure Limits
<input checked="" type="checkbox"/>	Hydrochloric Acid	CAS# 7647-01-0	20 - 22%	W/W	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

SECTION 4 FIRST AID MEASURES

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

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. Seek medical attention.

INGESTION: Get medical attention immediately. Wash out mouth with water. Move exposed person to fresh air. If exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing or wear gloves.

SECTION 5 FIRE FIGHTING MEASURES

Fire Extinguisher Type:	Any means suitable for extinguishing surrounding fire
Fire / Explosion Hazards:	Development of hazardous combustion gases or vapors possible in event of a fire.
Fire Fighting Procedure:	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.
Flammability of the product:	No specific hazard.

SECTION 6 ACCIDENTAL RELEASE MEASURES

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

Personal precautions: Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment.

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Methods for cleaning up: If emergency personnel are unavailable, contain spilled material. For small spills, add absorbent (soil may be used in the absence of other suitable materials), scoop up material and place in a sealable, liquid-proof container for disposal. For large spills, dike spilled

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material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

SECTION 7 HANDLING AND STORAGE

Do not ingest. Do not get in eyes or on skin or clothing. Keep container closed. Use only with adequate ventilation. Avoid breathing vapor or mist. Wash thoroughly after handling. Keep container tightly closed. Store in cool, well ventilated area.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: NIOSH/MSHA-approved respirator if necessary.

Ventilation

Local Exhaust

Mechanical

Protective Gloves: Wear appropriate gloves to prevent skin exposure

Eye Protection: Splash Goggles,
face shield

Other Protective Equipment: Wear appropriate clothing to prevent skin exposure

Product name - United States – Hydrochloric Acid

Exposure limits

ACGIH TLV (United States, 2003)

CEIL: 2 ppm

NIOSH REL (United States, 12/2001)

CEIL: 7 mg/m³ Form: All forms

CEIL: 5 ppm Form: All forms

OSHA PEL (United States, 8/1997)

CEIL: 7 mg/m³ Form: All forms

CEIL: 5 ppm Form: All forms

OSHA PEL 1989 (United States, 3/1989)

CEIL: 7 mg/m³ Form: All forms

CEIL: 5 ppm Form: All forms

ACGIH TLV (United States, 1/2005). Notes: Refers to Appendix A—Carcinogens. ACGIH 2003 Adoption

CEIL: 2 ppm Form: All forms

Consult local authorities for acceptable exposure limits.

Engineering measures: Use only with adequate ventilation. If user operations generate dust, fumes, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal Protection

Eyes: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

Recommended: splash goggles

Skin: Personal protective equipment for the body should be selected based on the task being performed and risks involved and should be approved by a

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specialist before handling this product.
 Body Recommended: safety apron, or full suit and gloves
 Feet Recommended: Boots

Respiratory: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
 Recommended: Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Vapor respirator or self-contained breathing apparatus (SCBA).

Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Melting Point:	Information not available	Percent Volatile by Volume:	> 99
Boiling Point:	Information 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, odorless liquid	Upper Flamm. Limit in Air	Not applicable
Flash Point:	Not Flammable		
Specific Gravity:	~ 1.1		

SECTION 10 STABILITY AND REACTIVITY INFORMATION
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Stability:	Stable
Conditions to Avoid:	Avoid Light
Materials to Avoid:	Halides, ammonia, phosphates, bases, metals
Hazardous Decomposition Products:	HCl Fumes, Chlorine
Hazardous polymerization:	Will Not Occur
Conditions to Avoid:	None known

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Conditions of reactivity: Explosive in the presence of the following materials or conditions: metals

SECTION 11 Toxicological Information

Toxicity data
United States - Product Name – Hydrochloric Acid

Test	Result	Route	Species
LD50	900 mg/kg	Oral	Rabbit
LC50	1108 ppm (1 hour)	Inhalation	Mouse

Chronic effects on humans: CARCINOGENIC EFFECTS Classified A4 (Not classifiable for humans or animals.) by ACGIH, 3 (Not classifiable for humans.) by IARC (Hydrochloric Acid). Contains material which causes damage to the following organs: lungs, upper respiratory tract, skin, eye, lens or cornea.

Other toxic effects on humans: Very hazardous in case of skin contact (corrosive, permeator), of eye contact (corrosive), of ingestion, of inhalation (lung irritant, lung corrosive).

Specific effects

Carcinogenic effects: No known significant effects or critical hazards.
Mutagenic effects: No known significant effects or critical hazards.
Teratogenicity/Reproductive toxicity: No known significant effects or critical hazards.

Sensitization

Ingestion: May cause burns to mouth, throat and stomach.
Inhalation: Severely irritating to the respiratory system.
Eyes: Corrosive to eyes.
Skin: Corrosive to the skin.

SECTION 12 Ecological Information

Environmental precaution: No known significant effects or critical hazards.

Products of degradation: These products are halogenated compounds.

Toxicity of the products of biodegradation: The products of degradation are as toxic as the product itself.

SECTION 13 Disposal Considerations

Waste disposal: The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

RCRA classification: Code (C)

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

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

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United States

HCS Classification:

Toxic material
Corrosive material
Target organ effects

U.S. Federal regulations: TSCA 8(b) inventory. Listed

SARA 302/304/311/312 extremely hazardous substances: Hydrochloric Acid
SARA 302/304 emergency planning and notification: Hydrochloric Acid
SARA 302/304/311/312 hazardous chemicals: Hydrochloric Acid
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Hydrochloric Acid: Sudden release of pressure, Immediate (acute) health hazard, Delayed (chronic) health hazard.

Clean Water Act (CWA) 307: No products were found
Clean Water Act (CWA) 311: Hydrochloric Acid
Clean Air Act (CAA) 112 accidental release prevention: Hydrochloric Acid
Clean Air Act (CAA) 112 regulated flammable substances: No products were found.
Clean Air Act (CAA) 112 regulated toxic substances: Hydrochloric Acid

SARA 313

Form R - Reporting requirements

Product name: Hydrochloric Acid
CAS number: 7647-01-0
Concentration: 20 - 22%

Supplier notification

Product name: Hydrochloric Acid
CAS number: 7647-01-0
Concentration: 20 - 22%

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State regulations:

Pennsylvania RTK: Hydrochloric Acid: (environmental hazard, generic environmental hazard.)

Massachusetts RTK: Hydrochloric Acid

New Jersey: Water; Hydrochloric Acid 6.0N

Canada

WHMIS (Canada):

Class D1A Very Toxic material causing immediate and serious toxic effects

Class E: Corrosive material

CEPA DSL/CEPA NDSL: CEPA DSL; Hydrochloric Acid, Water

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

EU regulations

Risk phrases:

R36/37/38 – Irritating to eyes, respiratory system and skin

Safety phrases:

S2 – Keep out of the reach of children

S46 – If swallowed, seek medical advice immediately and show this container or label.

International regulations

International lists: Australia (NICNAS): Hydrochloric Acid: Water

China: Hydrochloric Acid

Germany water class: Hydrochloric Acid

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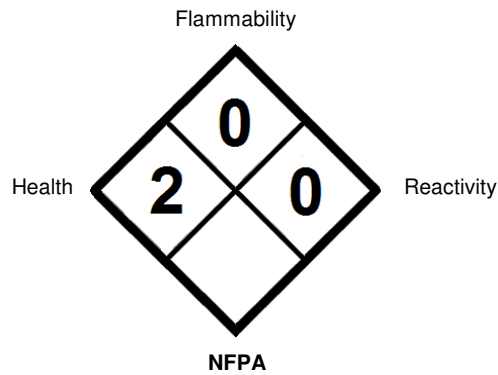
Japan (METI): Hydrochloric Acid; Water

Korea (TCCL): Hydrochloric Acid; Water

Philippines (RA69): Hydrochloric Acid; Water

SECTION 16

Additional Information



Revisions

7/19/2010

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Review date for MSDS. STN

The information herein is believed to be accurate and is offered in good faith for the user's consideration and investigation. No warranty either expressed or implied is made for the completeness or accuracy of the information whether originating from the above mentioned company or not. Users of this material should satisfy themselves by independent investigation of current scientific and medical knowledge that the material can be used safely.