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Section I - Product Identification

Product: An aqueous solution of Hydrochloric Acid.

Intended Uses: Normally used as a general laboratory reagent.

Uses advised against: For laboratory use only.

Manufacturer Identification

Medical Chemical Corp.
19430 Van Ness Ave.
Torrance, CA 90501

Customer Service: Phone (310)787-6800
Email: Christinaavena@med-chem.com
FAX (310)787-4464

Emergency Telephone Number

CHEMTREC Emergency Response Telephone Number: (800)424-9300. Note: The CHEMTREC phone number is only for emergencies involving spills, leaks, fire, exposure or accident. Please direct all other inquiries to our customer service phone number.



Section II - Hazard Identification

This item is considered hazardous by 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). Causes severe skin burns and eye damage on contact.

Eye damage/eye irritation: Category 1a (H314). Causes severe skin burns and eye damage.

Corrosive to Metals: Category 1 (H290). May be corrosive to metals.

Acute toxicity (Oral): Category 4 (H302). Harmful if swallowed.

Acute toxicity (Dermal): Category 2 (H315). Causes skin irritation.

Carcinogenicity: Category 2 (H351). Suspected of causing cancer.

Specific target organ toxicity: Category 2 (H373). Causes damage to organs through prolonged or repeated exposure.

Signal word: Danger

Hazard statements

Hydrochloric Acid is a strong acid and is corrosive to the eye and skin. Inhalation, ingestion or skin contact with material may cause severe injury or death. Avoid any skin contact. Effects of contact or inhalation may be delayed. Fire may produce irritating, corrosive and/or toxic gases.

P102 Keep out of reach of children.

P220 Keep away from clothing and other combustible materials.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P363 Wash contaminated clothing before reuse.

Safety Ratings

Health: Hazardous *Flammability:* None *Reactivity:* None *Contact:* Slight

Recommended safety equipment: safety goggles, lab coat and proper gloves.

NFPA Ratings

Health = 3 Flammability = 0 Reactivity = 1

Potential Health Effects

Hydrochloric Acid is a strong acid that will cause Severe tissue damage and severe ulcers on contact with skin or eyes.

Inhalation: Extremely corrosive to mucous membranes and other structures in the respiratory tract. Will cause pulmonary edema. Inhaling droplets of the solution will cause ulceration of the structures in the respiratory tract and can cause pulmonary edema.

Ingestion: Will cause severe burns to mouth, esophagus and stomach. Also causes nausea, vomiting, diarrhea, etc.

Skin contact: Will cause severe burns and ulceration.

Eye contact: Causes serious eye damage.

Chronic Exposure: Repeated or prolonged contact with skin will cause ulceration.

Aggravation of preexisting conditions: Unknown.

Section III - Composition/Information on Components

| Ingredient | CAS # | EC/List No. | % w/w |
|-------------------|-----------|-------------|-------|
| Hydrochloric Acid | 7647-01-0 | 231-595-7 | 54% |

Section IV - First Aid Measures

Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substance; this is irrespective of the recommendation involving the wearing of eye protection. Facilities for quickly drenching the body should be provided within the immediate work area for emergency use where there is a possibility of exposure.

Inhalation: Remove from source of exposure and get immediate medical attention.

Ingestion: Rinse mouth with water but do not induce vomiting. Get immediate medical attention.

Skin Contact: Remove contaminated clothing and launder before reuse. Wash affected area with soap and water. Get medical advice if needed.

Eye Contact: Remove contact lenses if possible and rinse well with water. Get immediate medical attention.

Section V - Fire Fighting Measures

Flash point: Not applicable.

Flammable Limits: Not applicable.

Fire: Not normally a fire hazard.

Explosion: Not normally an explosion hazard.

Fire Extinguishing Media: Dry chemical, CO₂, alcohol-resistant foam or water spray.

Special information: Decomposes when heated to release hydrochloric acid.

Section VI - Accidental Release Measures

Absorb with a suitable absorbent and store in a suitable container for disposal.

Section VII - Handling and Storage

P403+P233+P102; Store in a well-ventilated place. Keep container tightly closed. Keep out of reach of children. Store away from foodstuffs.

Section VIII - Exposure Control/Personal Protection

| Component | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|-------------------|---------------|---------------|------------|
| Hydrochloric Acid | 2 ppm Ceiling | 5 ppm Ceiling | 50 ppm |

Legend

ACGIH: American Conference of Governmental Industrial Hygienists.

OSHA: Occupational Safety and Health Administration.

NIOSH: National Institute for Occupational Safety and Health.

IDLH: Immediately dangerous to life or health.

Ventilation System: Usually not required. When required, Refer to the ACGIH document, "Industrial Ventilation, a Manual of Recommended Practices" for details about ventilation.

Personal Respirator: Usually not required. In case of emergency, or when exposure levels are unknown, use a positive pressure, full face piece, air supplied respirator.

Skin protection: Protective gloves are required.

Eye Protection: Laboratory safety goggles or similar products are required.

Section IX - Physical and Chemical Properties

Boiling Point: 102 °C

Vapor pressure (mm Hg): 18 @ 20 °C

Vapor Density (air = 1): 0.6

Appearance and Odor: A clear, colorless solution. The solution will darken as it ages.

Density: About 1.09 g/ml

Evaporation Rate (water = 1): 1

Solubility: Infinitely miscible with water

Section X - Stability and Reactivity

Stability: Stable under normal conditions.

Hazardous Decomposition Products: Decomposes when heated to liberate hydrochloric acid.

Hazardous polymerization: Will not occur.

Incompatibilities: Reacts with organic material.

Conditions to avoid: Excessive cold and heat.

Section XI - Toxicological Information

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|-------------------|-----------------|-------------------|---------------------|
| Hydrochloric Acid | 238 mg/kg (Rat) | > 5 g/kg (Rabbit) | 3124 ppm/hour (Rat) |

Cancer lists

| <i>Ingredient</i> | <i>Known Carcinogenicity?</i> | <i>NTP?</i> | <i>Anticipated?</i> | <i>IARC Category</i> |
|-------------------|-------------------------------|-------------|---------------------|----------------------|
| Hydrochloric Acid | No | No | No | 3 |

Section XII - Ecological Information

This product is expected to bioaccumulate. The product does not contain endocrine disrupters, persistent organic pollutants or ozone depleters.

Soil Mobility: Expected to be high.

Environmental Fate: Biodegradable

Environmental Toxicity: Very toxic to aquatic life with long lasting effects.

| Component | Freshwater Fish | Water Flea | Freshwater algae |
|-------------------|--------------------|------------|------------------|
| Hydrochloric Acid | LC50 282 mg/l 96 h | No data | No data |

Section XIII - Disposal Considerations

Local governments usually restrict the amounts of strong acids that may be flushed down the drain. Typically the pH of the sewage outflow from a building is restricted to Between 4 and 10. Also, strong acids will corrode metal plumbing. Strong acids may usually be neutralized with base by qualified individuals before flushing down the drain. Dispose of contents and container in accordance with all government regulations.

Section XIV - Transportation Information

DOT Shipping name: Hydrochloric Acid Solution
DOT Hazard Label: Corrosive

Hazard Class: 8 *Packing Group:* II
DOT Identification Number: UN1789

Bottles smaller than 32 Fl. Oz. are eligible to be shipped under limited quantity exemptions [49 CFR section 173.154(b) and 173.154(C)].

Section XV - Regulatory Information

Chemical Inventory Status

| <i>Ingredient</i> | <i>TSCA</i> | <i>EC</i> |
|-------------------|-------------|-----------|
| Hydrochloric Acid | Yes | Yes |

Federal and State Regulations

| <i>Ingredient</i> | <i>SARA 302</i> | | <i>SARA 313</i> | | <i>RCRA TSCA</i> | | <i>Ca. Prop 65</i> |
|-------------------|-----------------|------------|-----------------|-----------------|------------------|-------------|--------------------|
| | <i>RQ</i> | <i>TPQ</i> | <i>List</i> | <i>Category</i> | <i>261.33</i> | <i>8(D)</i> | |
| Hydrochloric Acid | No | No | No | No | No | No | No |

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

SARA 311/312: *Acute:* Yes, *Chronic:* No, *Fire:* No, *Pressure:* No

Section XVI - Other Information

This information is believed to be correct at the time of publication but is not guaranteed as such, nor does it purport to be all inclusive. Medical Chemical Corp. assumes no liability for the accuracy or completeness of the information. The user assumes all responsibility for compliance with federal, state and local laws.

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