

Safety Data Sheet

Hydrochloric Acid, 2% Aqueous

Section 1 - Chemical Product and Company Identification

SDS Name: Hydrochloric Acid, 2% Aqueous
Catalog Numbers: SO-353, J-613-2, B-170-2

Company Identification: ROWLEY BIOCHEMICAL
10 ELECTRONICS AVENUE
DANVERS, MA 01923

For information, call: 978-739-4883
Emergency Number: 800-424-9300
For CHEMTREC assistance, call: 800-424-9300

Section 2 - Hazards Identification

GHS Classifications Category

H290-Corrosive to Metals: 1
H302-Acute Oral Toxicity: 4
H314-Skin Corrosion/Irritation: 1B
H318-Serious Eye damage/Eye Irritation: 1
H332-Acute Inhalation Toxicity: 4

Pictograms or Hazard Symbols and Hazard Statement(s):



Signal Word: Danger

Hazard Statements:

H290-May be corrosive to metals
H302-Harmful if swallowed
H314-Causes severe skin burns and eye damage
H318-Causes serious eye damage
H332-Harmful if inhaled

Precautionary Statements:

P234-Keep only in original container.
P260-Do not breathe dusts or mists.
P261-Avoid breathing dust/fume/gas/mist/vapours/spray.
P264-Wash thoroughly after handling.
P270-Do not eat, drink or smoke when using this product.
P271-Use only outdoors or in a well-ventilated area.

P280-Wear protective gloves/protective clothing/eye protection/face protection.
 P301+P312-If swallowed: Call a poison center or doctor/physician if you feel unwell.
 P301+P330+P331-If swallowed: Rinse mouth. Do NOT induce vomiting.
 P303+P361+P353-If on skin (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P304+P340-If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P305+P351+P338-If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310-Immediately call a poison center or doctor/physician.
 P312-Call a poison center or doctor/physician if you feel unwell.
 P330-Rinse mouth.
 P363-Wash contaminated clothing before reuse.
 P390-Absorb spillage to prevent material damage.
 P405-Store locked up.
 P406-Store in corrosive resistant container with a resistant inner liner.
 P501-Dispose of contents/container in accordance with all federal, state, and local regulations.

Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
7647-01-0	Hydrochloric Acid	2 v/v
7732-18-5	Water	balance

Section 4 - First Aid Measures

Eye Exposure: Corrosive to naked eye; in case of contact flush eyes well for 15 minutes, lifting the lower and upper eyelids occasionally. May cause permanent eye damage or blindness. Seek medical attention.

Dermal Exposure: Obtain medical attention: Corrosive to exposed skin. Flush skin well with water for 15 minutes, wash with soap and water. Remove affected clothing, get medical attention. May cause deep, penetrating burns.

Oral Exposure: Will cause severe burns to the mouth and severe and permanent damage to the digestive tract. Causes gastrointestinal burns and perforation of the digestive tract. Get Medical Attention immediately. Do not induce vomiting; give large quantities of water.

Inhalation Exposure: If inhaled, remove to fresh air. If not breathing give artificial respiration. Seek medical attention. Inhalation of vapors may cause coughing choking, inflammation of the nose, throat, and upper respiratory tract. In severe cases, may pulmonary edema, circulatory failure, and death.

Section 5 - Fire Fighting Measures

NFPA HEALTH **3** FLAMMABILITY **0** REACTIVITY **0**

Extinguishing media: Water spray. Neutralize with soda ash or slaked lime
Special fire fighting procedures: Wear chemically retardant gear and NIOSH approved self-contained breathing apparatus. Thermal decomposition produces irritating and toxic fumes. Extreme heat or contact with metals can release flammable hydrogen gas.
Toxic gases released: Hydrogen chloride, hydrogen gas.

Section 6 - Accidental Release Measures

Methods for Cleaning up: Ventilate area of leak or spill. Stop leak if possible to do so without risk. Clean-up personnel should wear protective clothing and NIOSH approved respirator. Dike and cover the contaminated areas with absorbent, non-combustible material such as earth, sand, or vermiculite. Neutralize with alkaline material such as soda ash or lime. Do not use combustibles. Do not flush to sewer. Do not release to the environment.

Section 7 - Handling and Storage

Wash thoroughly after handling. Remove contaminated clothing and wash before re-use. Do not breathe mist or vapor. Do not expose eyes, skin, or clothing. Keep container closed tightly. Avoid contact with combustibles. Do not use with metal tools or items. Use with adequate ventilation or respiratory protection. Do not store near combustibles or in direct sunlight. Store in a cool, dry, well-ventilated area away from incompatible substances. Separate from metals, alkali, and organics. Residue in empty containers may still be hazardous.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Hydrochloric acid CAS#7647-01-0	Ceiling: 2 ppm	50 ppm IDLH Ceiling: 5 ppm Ceiling: 7 mg/m ³	Ceiling: 5 ppm Ceiling: 7 mg/m ³

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: Clear, colorless

Odor: Pungent

Vapor Pressure: No information available

Odor threshold: No information available

Vapor Density: No information available

pH: approx. 0.6-1.0

Relative density: No information available

Melting point/freezing point: No information available

Solubility: soluble in water

Boiling Point: No information available

Flash point: No information available

Evaporation Rate: No information available

Flammability (solid, gas): No information available

Partition coefficient: n-octanol/water: No information available

Auto-ignition temperature: No information available

Decomposition temperature: No information available

Viscosity: No information available

Specific Gravity/Density: No information available

Section 10 - Stability and Reactivity

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to avoid: Excess heat, sunlight, confined spaces.

Hazardous Decomposition Products: Hydrogen chloride fumes, hydrogen gas

Hazardous Polymerization: Will not occur.

Incompatibilities with other materials: Most common metals, strong bases, oxidizing agents, reducing agents, aldehydes, metal oxides, amines, hydroxides, cyanides, sulfides, sulfites, formaldehyde, and carbonates.

Section 11 - Toxicological Information

CAS#7647-01-0 Hydrochloric Acid:

LD50, Oral: 238-277 mg/kg (rat)

LD50, Dermal: >5010 mg/kg (rabbit)

LC50, Inhalation: 1.68 mg/L (rat) 1h

Carcinogenicity: Hydrochloric acid CAS# 7647-01-0 is not listed by IARC, NTP, ACGIH, or OSHA, or California Prop 65.

Mutagenic Effects: no information available

Reproductive Effects: no information available

Developmental Effects: no information available

Teratogenicity: no information available

Specific Target Organ Toxicity, single exposure: no information available

Specific Target Organ Toxicity, repeated exposure: no information available

The toxicological properties of this material have not been fully investigated.

Section 12 - Ecological Information

Ecotoxicity: Do not release to the environment. Do not release into drains.

CAS#7647-01-0 Hydrochloric Acid:

LC50, freshwater fish: 282 mg/L 96h (gambusia affinis)

EC50, water flea: 56 mg/L 72h

Bioaccumulation: No information available.

Mobility: This material will likely be mobile in the environment due to its water solubility.

Section 13 - Disposal Considerations

DISPOSAL: Dispose of in accordance with all federal, state, and local regulations.

Section 14 - Transport Information

DOT

Class 8

PG II

UN 1789

Shipping Name: Hydrochloric Acid Solution

Section 15 - Regulatory Information

Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.

Section 16 - Additional Information

SDS Creation Date: 4-26-18

Revision #1: 8-21-19

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