Safety Data Sheet

SDS# 007

Hydrochloric Acid 4%

Crystal Clear Lab™

Hydrochloric Acid 4% Aqueous Solution

SECTION 1: IDENTIFICATION

Product Identifier: Hydrochloric Acid 4% Aqueous Solution

Product Name : Crystal Clear Lab Chlorine Dioxide Kit HCl Part B

Synonyms: 4% HCl, Muriatic Acid 4%

Manufacturer: Family Health Products Inc d.b.a. Crystal Clear Lab

Address: 13854 C Plaza, Omaha, NE 68144

Telephone Number: 531-867-7189

24-Hour Emergency Contact: 1-833-875-0643

Recommended Use: Chemical for synthesis; for the onsite generation of chlorine dioxide in small amounts. Packaged in limited quantities for consumer household use.

Restrictions on Use: Use only as directed.

SECTION 2: HAZARD IDENTIFICATION

GHS Classification:

Corrosive to Metals – Category 1

GHS Pictograms:



Signal Word: Warning

Hazard Statements:

May be corrosive to metals.

May cause eye and skin irritation.

Precautionary Statements:

Wash hands thoroughly after handling.

If in eyes, rinse with water for several minutes, removing contact lenses if present and easy to do. If on skin, wash with plenty of water.

Avoid breathing vapors.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

All percentages are w/w

Main Component	CAS No.	Formula	Concentration
Hydrochloric Acid	7647-01-0	HCl	4%
Water	7732-18-5	H_2O	96%

SECTION 4: FIRST AID MEASURES

Inhalation: Move to fresh air. Not expected to be an inhalation hazard at this concentration.

Skin Contact: Rinse affected area with soap and water. Remove contaminated clothing.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses if easy to do.

Ingestion: Rinse mouth. Do not induce vomiting. Drink water or milk to dilute. Seek medical help if symptoms persist.

SECTION 5: FIRE-FIGHTING MEASURES

Flammability: Not flammable

Extinguishing Media: Use water spray, fog, or dry chemical suitable for surrounding fire.

Hazardous Combustion Products: Hydrogen chloride gas.

Protective Equipment: Wear self-contained breathing apparatus and full protective gear in enclosed space.

Special Hazards: Heat may increase pressure inside containers and cause rupture or off-gassing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Section 6(A): Bulk Storage and Workplace

Personal Precautions, Protective Equipment, and Emergency Procedures: Wear protective clothing, gloves, and eye/face protection. Ensure adequate ventilation.

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and Materials for Containment and Cleaning Up: Neutralize with soda ash or lime, contain spillage, and then collect with non-combustible absorbent material (e.g., sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local regulations.

Section 6(B): Consumer Quantities

Small Spills: Wipe up with a damp cloth or paper towel and rinse area with water.

Larger Spills: Neutralize with baking soda, or dilute with excess water to minimize concentration. Absorb with inert material such as sand, earth, diatomaceous earth, or vermiculite.

If Using Cloth or Paper Towels: If cloth or paper towels are used to absorb the solution, rinse thoroughly with water before disposal.

SECTION 7: HANDLING AND STORAGE

Normal Consumer Use: No special PPE required. Avoid eye contact. Wash hands after use.

Handling: Avoid contact with skin or eyes. Use in a well-ventilated area. Even though solution is dilute, it may cause irritation in sensitive individuals. Wash hands thoroughly after handling. Avoid inhaling mist or vapors.

Storage: Store upright in tightly sealed containers, away from direct sunlight and incompatible materials. Do not freeze.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Normal Consumer Use: No special PPE required. Avoid eye contact. Wash hands after use.

Exposure Limits: No occupational limits established for this diluted solution.

Engineering Controls: Use with adequate ventilation.

Personal Protection:

Eye/Face Protection: Safety goggles.

Skin Protection: Neoprene or nitrile gloves.

Respiratory Protection: Not required under normal consumer use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, colorless liquid

Odor: Pungent, irritating odor

pH: < 1

Boiling Point: ~100°C

Freezing Point: ~0°C

Specific Gravity: 1.0 g/cm^3

Solubility: Fully miscible in water

SECTION 10: STABILITY AND REACTIVITY

Reactivity: May react with metal to produce flammable hydrogen gas. Reacts with bases to release heat.

Chemical Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur.

Conditions to Avoid: Excessive heat, direct sunlight, and incompatible materials.

Incompatible Materials: Bases, oxidizing agents, metals.

Hazardous Decomposition Products: Hydrogen chloride gas.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity: Not expected to be acutely toxic at this concentration. Ingestion may cause temporary irritation to the mouth, throat, and stomach.

Inhalation: May cause mild respiratory tract irritation if mist or vapors are inhaled.

Skin Corrosion/Irritation: Prolonged or repeated contact may cause mild skin irritation, redness, or itching.

Serious Eye Damage/Eye Irritation: May cause moderate eye irritation, redness, tearing, and discomfort.

Respiratory or Skin Sensitization: Not expected to be a sensitizer.

Germ Cell Mutagenicity: Not classified as a mutagen.

Carcinogenicity: Hydrochloric acid is not classified as a carcinogen by IARC, NTP, OSHA, or ACGIH.

Reproductive Toxicity: Not classified as a reproductive toxin.

Specific Target Organ Toxicity – Single Exposure: Not classified; mild respiratory irritation possible if inhaled.

Specific Target Organ Toxicity – Repeated Exposure: Not classified.

Aspiration Hazard: Not expected to be an aspiration hazard at this concentration.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity: Not expected to be harmful to aquatic life in typical use concentrations.

Persistence and Degradability: Not readily biodegradable.

Bio-accumulative Potential: Low bio-accumulation potential.

Mobility in Soil: Soluble in water.

SECTION 13: DISPOSAL CONSIDERATIONS

Section 13(A): Bulk Storage and Transport

Waste Treatment Methods: Neutralize with soda ash or lime, contain spillage, and then collect with non-combustible absorbent material (e.g., sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local regulations. Avoid release to the environment.

Section 13(B): Consumer Quantities

Small Bottles (4 oz and under): Small amounts of leftover solution can be flushed down the drain. Dilute larger amounts with plenty of water and flush down drain.

SECTION 14: TRANSPORT INFORMATION

UN Number: 1789

UN Proper Shipping Name: Hydrochloric acid

Transport Hazard Class(es): 8 (Corrosive)

Packing Group: III

Additional Information: May qualify as Limited Quantity if ≤1L in compliant packaging.

SECTION 15: REGULATORY INFORMATION

Regulatory Status: Complies with OSHA Hazard Communication Standard 29 CFR 1910.1200.

TSCA: All components listed

SARA 302: Not subject

SARA 313: Not subject

California Prop 65: No listed substances

WHMIS: Not classified

SECTION 16: OTHER INFORMATION

Date of Last Revision: August 2026

Revision Note: Revised to update spill and disposal instructions for 4% Hydrochloric Acid. (see below)

Section 6 (Accidental Release Measures) & Section 13 (Disposal Considerations):

• Revised to differentiate between consumer-level and warehouse/bulk shipment protocols.

• These changes provide practical and regulatory-compliant handling and disposal instructions for real-world consumer use scenarios.

Supersedes: All previous versions

Disclaimer: This Safety Data Sheet is provided for informational purposes only and is intended solely as a guide for the safe handling, use, processing, storage, transportation, and disposal of the product. It includes considerations for small, consumer-sized retail packaging. The information is believed to be accurate as of the date of issue but does not

constitute a legally binding guarantee of product specifications or fitness for a particular purpose. No warranty, express or implied, is made. The user assumes full responsibility for safe and compliant use of the product.