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**1. PRODUCT AND COMPANY IDENTIFICATION**

**1.1 Product Name:** Hydrochloric Acid 5%, Aqueous  
**Part Number:** 12086  
**CAS-No.:** Not applicable  
**SDS Number:** 3280

**1.2 Recommended Use:** Laboratory Chemicals

**1.3 Company:** Newcomer Supply  
 2505 Parview Road  
 Middleton, WI 53562 USA

**Telephone:** 1-800-383-7799

**Fax:** 1-608-831-0866

**Website:** [www.newcomersupply.com](http://www.newcomersupply.com)

**Email:** [newly@newcomersupply.com](mailto:newly@newcomersupply.com)

24 HOUR EMERGENCY CONTACT  
 CALL CHEMTREC: 1-800-424-9300  
 Contact CHEMTREC only in the event of  
 an emergency involving a chemical spill,  
 leak, fire, exposure or other accident.

**2. HAZARD(S) IDENTIFICATION**
**2.1 Classification of the substance or mixture**

GHS Classification, (in accordance with 29 CFR1910.1200)

Corrosive to metals, Category 1

Skin corrosion, Category 1B

Serious eye damage, Category 1

Specific Target Organ Toxicity – Respiratory System - Single exposure, Category 3

**2.2 GHS Label elements**

**Signal Word** DANGER

**Pictogram**



**Hazard Statement(s):**

- May be corrosive to metals
- Causes severe skin burns and eye damage
- Causes serious eye damage
- May cause respiratory irritation
- May cause drowsiness or dizziness

**Precautionary Statement(s):**

**Prevention:**

- Keep only in original container
- Do not breathe dust/fume/gas/mist/vapours/spray
- Wash skin thoroughly after handling
- Wear protective gloves/protective clothing/eye protection/face protection
- Use only outdoors or in a well-ventilated area

**Response:**

- Absorb spillage to prevent material damage.
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- Immediately call a POISON CENTER or doctor/physician
- Specific treatment: see first aid measures in section 4
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing

**Storage:**

- Store in a corrosive resistant/... container with a resistant inner liner

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· Store locked up. Store in a well ventilated place.

**Disposal:**

· Dispose of contents/ container to an approved waste disposal plant.

**2.3 Description of any hazards not otherwise classified**      None

**2.4 >1% of mixture with unknown acute toxicity**      None

**3. COMPOSITION/INFORMATION ON INGREDIENTS**
**3.2 Mixture**
**Hazardous Components**

Component		Concentration
Name	Hydrochloric Acid	
CAS-No.	7647-01-0	5%

**4. FIRST-AID MEASURES**
**4.1 Description of necessary measures**
**Inhalation (breathing)**

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Immediately call a POISON CENTER or doctor/physician

**Skin Contact**

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor/physician

**Eye Contact**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. Immediately call a POISON CENTER or doctor/physician

**Ingestion (swallowed)**

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician

**4.2 Most important symptoms and or effects, acute and delayed**

The most important symptoms/effects are presented in Section 2 and or Section 11.

**4.3 Indication of any immediate medical attention and special treatment needed**

No data available

**5. FIRE-FIGHTING MEASURES**
**5.1 Suitable extinguishing media**

Carbon dioxide, dry chemical, water spray, alcohol-resistant foam.

**5.2 Specific hazards arising from the substance or mixture**

No data available

**5.3 Protective equipment and precautions for fire-fighters**

Wear a positive-pressure self-contained breathing apparatus if necessary. Wear chemical resistant clothing as recommended by clothing manufacturer.

**NFPA Rating**

Health	Fire	Reactivity
hazard: 3	hazard: 0	hazard: 1

**6. ACCIDENTAL RELEASE MEASURES**
**6.1 Personal precautions, protective equipment and emergency procedures**

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Apply personal protective equipment (see Section 8). Use in a properly ventilated area. Avoid breathing vapors. Avoid skin contact. Avoid eye contact. Wash hands after use. In case of large spill, remove personnel to a safe area.

**6.2 Methods and material for containment and cleaning up**

Apply personal protective equipment (see Section 8). Contain spill. Prevent further leakage if possible and safe to do so. Ensure proper ventilation. For small amounts, wipe or absorb spill using inert material and dispose of according to local regulations. For large amounts, evacuate area and limit access. Prevent entry of material into sewage drains and confined areas. Dispose of any contaminated materials according to local regulations.

**7. HANDLING AND STORAGE**
**7.1 Precautions for safe handling**

Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing

**7.2 Conditions for safe storage, including any incompatibilities**

Refer to Section 2.2 for proper storage temperature. Store the tightly closed container in a cool, dry, well-ventilated area.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**
**8.1 Control Parameters**

Components with limit values that require monitoring at the workplace

Component	CAS-No.	Regulatory	Value	Parameters
Hydrochloric Acid	7647-01-0	OSHA PEL	C	5 ppm (7 mg/m <sup>3</sup> )
		NIOSH REL	C	5 ppm (7 mg/m <sup>3</sup> )
		NIOSH REL	IDLH	50 ppm (75 mg/m <sup>3</sup> )
		ACGIH TLV	C	2 ppm

**8.2 Exposure Controls**
**Appropriate engineering controls**

Use in a properly ventilated area. Remove/wash before reuse contaminated clothing. Wash hands upon exiting work premises. Use product in an appropriately designated fume hood. Take measures to keep concentrations below acceptable limits.

**8.3 Personal Protective Equipment**
**Eye/Face protection**

Wear chemical safety goggles and/or a full face shield if splashing is possible. Keep eye wash fountain nearby.

**Skin Protection**

Wear chemical-resistant gloves. Gloves should be resistant to components of product. Refer to glove manufacturer for appropriate type and glove thickness.

**Body Protection**

No data available

**Respiratory Protection**

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Respirators should only be used if the employer has implemented a written program that takes into account workplace conditions, requirements for worker training, respirator fit testing, and medical exams, as described in the OSHA Respiratory Protection Standard (29 CFR 1910.134).

Where the potential exists for exposure over 2 ppm: use a NIOSH approved full facepiece respirator with an acid gas cartridge which is specifically approved for hydrochloric acid. Increased protection is obtained from full facepiece powered-air purifying respirators. Leave the area immediately if (1) while wearing a filter or cartridge respirator you can smell, taste, or otherwise detect hydrochloric acid, (2) while wearing particulate filters abnormal resistance to breathing is experienced, or (3) eye irritation occurs while wearing a full facepiece respirator. Check to make sure the respirator-to-face seal is still good. If it is, replace the filter or cartridge. If the seal is no longer good, you may need a new respirator.

Where the potential exists for exposure over 20 ppm: use a NIOSH approved supplied-air respirator with a full facepiece operated in a pressure-demand or other positive-pressure mode. For increased protection use in combination with an auxiliary self-contained breathing apparatus or an emergency escape air cylinder.

Exposure to 50 ppm is immediately dangerous to life and health. If the possibility of exposure above 50 ppm exists: use a NIOSH approved self-contained breathing apparatus with a full facepiece operated in a pressure-demand or other positive-pressure mode equipped with an emergency escape air cylinder. In case of emergency, entry into or escape from unknown concentrations, select the highest level approved respiratory protection available.

**Other Information**  
None

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Physical state	Clear, colorless liquid
Odor	No data available
Odor threshold	No data available
pH	<2
Melting point/freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	Non flammable liquid
Upper flammability or explosive limits	No data available
Lower flammability or explosive limits	No data available
Vapor pressure	No data available
Vapor density	No data available
Relative density	No data available
Solubility(ies)	Water soluble
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

No data available

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**10.2 Chemical stability**

No data available

**10.3 Possibility of hazardous reactions**

No data available

**10.4 Conditions to avoid**

Store in tightly closed containers in a cool, well-ventilated area away from combustibles.

**10.5 Incompatible materials**

Hydrochloric acid may react explosively with alcohols; hydrogen cyanide; potassium permanganate; sodium; and tetraselenium tetranitride, and may ignite on contact with fluorine; hexalithium disilicide; metal acetylides and carbides. Hydrochloric acid reacts with oxidizing agents (such as perchlorates, peroxides, permanganates, chlorates, nitrates, chlorine and bromine) to form toxic chlorine gas and reacts violently with strong bases (such as sodium hydroxide and potassium hydroxide). Hydrochloric acid will attack many metals (such as copper, brass, and zinc) to release flammable and explosive hydrogen gas. Hydrochloric acid will react with aldehydes and epoxides to cause violent polymerization (self-reaction). Hydrochloric acid corrodes steel.

**10.6 Hazardous decomposition products**

No data available

**11. TOXICOLOGICAL INFORMATION**
**11.1 Information on toxicological effects**
**Inhalation exposure**

It has been reported that 50 to 100 ppm for 1 hour is barely tolerable and that 35 ppm causes irritation of the throat. Acute inhalation exposure may cause coughing, hoarseness, inflammation and ulceration of the respiratory tract, chest pain, and pulmonary edema in humans.

**Oral exposure**

Acute oral exposure may cause corrosion of the mucous membranes, esophagus, and stomach, with nausea, vomiting, and diarrhea reported in humans.

**Dermal exposure**

Dermal contact may produce severe burns, ulceration, and scarring.

**Skin corrosion/irritation**

Hydrochloric acid is corrosive to the eyes, skin, and mucous membranes.

**Serious eye damage/irritation**

Hydrochloric acid is corrosive to the eyes, skin, and mucous membranes.

**Respiratory or skin sensitization**

No data available

**Germ Cell mutagenicity**

No data available

**Reproductive toxicity**

In rats exposed to hydrochloric acid by inhalation, severe dyspnea, cyanosis, and altered estrus cycles have been reported in dams, and increased fetal mortality and decreased fetal weight have been

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

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Chronic occupational exposure to hydrochloric acid has been reported to cause gastritis, chronic bronchitis, dermatitis, and photosensitization in workers. Prolonged exposure to low concentrations may also cause dental discoloration and erosion. Chronic inhalation exposure caused hyperplasia of the

**Aspiration hazard**

No data available

**Acute toxicity**

LCLo human 1300 ppm/30 minutes

LC50 rat 3124 ppm/1 hour

LC50 mouse 1108 ppm/1 hour

**Carcinogenicity**

IARC: Hydrochloric Acid: Group 3 Carcinogen - not classifiable as to its carcinogenicity to humans.

NTP: None of the components are listed

OSHA: None of the components are listed

**Additional information**

RTECS: No data available

**12. ECOLOGICAL INFORMATION**
**12.1 Ecotoxicity**

No data available

**12.2 Persistence and degradability**

No data available

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available

**12.5 Other adverse effects**

No data available

**13. DISPOSAL CONSIDERATIONS**
**13.1 Waste disposal methods**
**Contents**

Dispose of contents in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**

Dispose of packaging in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

**14. TRANSPORT INFORMATION**
**14.1 DOT (US)**

<b>UN-Number</b>	1789
<b>Proper shipping name</b>	Hydrochloric Acid
<b>Hazard class</b>	8
<b>Packing group</b>	II
<b>Environmental hazards</b>	No data available

**15. REGULATORY INFORMATION**
**15.1** No data available

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**16. OTHER INFORMATION**

Preparation Information

Newcomer Supply Inc.

800-383-7799

[www.newcomersupply.com](http://www.newcomersupply.com)

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