

## SAFETY DATA SHEET

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifiers

Product name: Hydrochloric acid solution, ≤10%  
CAS number: 7647-01-0  
Synonyms: Muriatic acid solution; hydrogen chloride solution

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses Laboratory chemicals.

#### 1.3 Details of the supplier of the safety data sheet

Company Lab Alley, LLC  
12501 Pauls Valley Road  
Austin, Texas 78737  
U.S.A.  
Telephone 512-668-9918  
Fax 512-886-4008

#### 1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Corrosive to metals	Category 1
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 1

#### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Danger

Hazard statements

May be corrosive to metals.  
Causes skin irritation.  
Causes serious eye damage.

## 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None identified.

## SECTION 3: Composition/information on ingredients

### 3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Water	H <sub>2</sub> O, Aqua	7732-18-5	≥90%
Hydrochloric acid	Hydrogen Chloride, Muriatic Acid	7647-01-0	≤10%

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

**General advice**

If symptoms persist, call a physician

**If inhaled**

Move to fresh air. If breathing is difficult, give oxygen. Obtain medical attention.

**In case of skin contact**

Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.

**In case of eye contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

**If swallowed**

Do not induce vomiting. Obtain medical attention.

### 4.2 Most important symptoms and effects, both acute and delayed

May cause skin irritation and/or dermatitis.

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

No information available.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.

**Unsuitable extinguishing media** No information available.

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

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes. Keep product and empty container away from heat and sources of ignition.

### 5.3 Special protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### 5.4 Further information

#### Flash Point

No data available

#### Autoignition Temperature

No information available.

#### Explosion limits

##### Upper

No data available.

##### Lower

No data available.

##### Sensitivity to Mechanical Impact

No information available.

##### Sensitivity to Static Discharge

No information available.

#### NFPA

Health	Flammability	Instability	Physical hazards
2	0	0	N/A

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing.

### 6.2 Environmental precautions

Avoid release to the environment. See Section 12 for additional ecological information.

### 6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

See section 2 for full list of hazard and precaution statements.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Precautions on safe handling

Wear personal protective equipment. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation.

#### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

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

#### Storage conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area.

#### Incompatibilities

No additional information available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Component	Type	Value
Hydrochloric acid	PEL	5 ppm      7 mg/m <sup>3</sup>

#### US. ACGIH Threshold Limit Values

Component	Type	Value
Hydrochloric acid	TWA	2 ppm

#### US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Hydrochloric acid	REL	5 ppm      7 mg/m <sup>3</sup>

#### Biological occupational exposure limits

No additional information available.

### 8.2 Exposure controls

#### Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Personal protective equipment

**Eye/face protection**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 19 CFR 1910.133 or European Standard EN166.

**Skin protection**

Wear appropriate protective gloves and clothing to prevent skin exposure.

**Body Protection**

Wear appropriate clothing to prevent skin exposure.

**Respiratory protection**

Follow the OSHA respirator regulations found in 19 CFR 1910.134 or European Standard EN 149.

**Control of environmental exposure**

No additional information available.

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

Physical State	Liquid
Appearance	Clear
Odor	Pungent
Odor Threshold	No information available.
pH	1.1 (0.1N)
Melting Point/Range	0 °C / 32 °F
Boiling Point/Range	100 °C / 212 °F
Evaporation Rate	No information available.
Flammability (solid)	Not applicable.
Flammability or explosive limit	
Upper	No data available.
Lower	No data available.
Vapor Pressure	No information available.
Vapor Density	No information available.
Density	1.0-1.2
Solubility	Soluble in water.
Partition coefficient; n-octanol/water	No information available.
Autoignition Temp	No information available.
Decomposition Temp	No information available.
Viscosity	No information available.
Molecular Formula	HCl
Molecular Weight	36.46
VOC Content(%)	No information available.
Oxidizing properties	No information available.

## 9.2 Other safety information

No information available.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

None known, based on information available.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

### 10.4 Conditions to avoid

Incompatible products. Excess heat.

### 10.5 Incompatible materials

Metals, Oxidizing agents, Reducing agents, Aldehydes

### 10.6 Hazardous decomposition products

Hydrogen chloride gas. Thermal decomposition can lead to release of irritating gases and vapors.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Product Information, Component Information

#### Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Hydrochloric acid	238-277 mg/kg (Rat)	5010 mg/kg (Rabbit)	1.68 mg/L (Rat) 1 h

#### Skin corrosion/irritation

Irritating to skin

#### Serious eye damage/eye irritation

Causes eye burns.

#### Respiratory or skin sensitization

No information available.

#### Germ cell mutagenicity

Mutagenic effects have occurred in microorganisms.

#### Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
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Water	7732-18-5	Not listed	Not listed	Not listed	Not listed	Not listed
Hydrochloric acid	7647-01-0	Group 3	Not listed	Not listed	Not listed	Not listed

**Specific target organ toxicity - single exposure**

None known.

**Specific target organ toxicity - repeated exposure**

None known.

**Reproductive toxicity**

Experiemnts have shown reproductive toxicity effects on laboratory animals.

**Chronic effects**

No additional information available.

**11.2 Additional Information**

See actual entry in RTECS for complete information.

**SECTION 12: Ecological information**

**12.1 Toxicity**

Product		Species	Test Results
Hydrochloric acid	LC50	Freshwater Fish	282 mg/L 96 h
	-	-	-

**12.2 Persistence and degradability**

Soluble in water. Persistence is unlikely based on information available.

**12.3 Bio accumulative potential**

No information available.

**12.4 Mobility in soil**

Will likely be mobile in the enviornment due to its water solubility.

**12.5 Results of PBT and vPvB assessment**

No additional information available.

**12.6 Endocrine disrupting properties**

No information available.

**12.7 Other adverse effects**

No additional information available.

**SECTION 13: Disposal considerations**

**13.1 Waste Disposal Methods**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## SECTION 14: Transport information

### DOT (US)

<b>UN-No</b>	UN1789
<b>Proper Shipping Name</b>	HYDROCHLORIC ACID SOLUTION
<b>Hazard Class</b>	8
<b>Packing Group</b>	III

### IMDG

<b>UN-No</b>	UN1789
<b>Proper Shipping Name</b>	HYDROCHLORIC ACID SOLUTION
<b>Hazard Class</b>	8
<b>Packing Group</b>	III

### IATA

<b>UN-No</b>	UN1789
<b>Proper Shipping Name</b>	HYDROCHLORIC ACID SOLUTION
<b>Hazard Class</b>	8
<b>Packing Group</b>	III

## SECTION 15: Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not applicable

**CERCLA Hazardous Substance List (40 CFR 302.4)**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

**Chemical Identity**

Hydrochloric acid

**Hazardous Substances RQs**

5000 lb

**CERCLA EHS RQs**

5000 lb

**SARA 304 Emergency release notification**

Not regulated

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**

Not regulated.



**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous**

Acute Health Hazard

**SARA 313 (TRI reporting)**

Hydrochloric acid (7647-01-0)

Weight %: 3.65

Threshold Values %: 1.0

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

**Chemical Identity**

Hydrochloric acid

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act**

**Chemical Identity**

Hydrochloric acid (Hazardous Substance)

**Reportable Quantities**

5000 lb

**FEMA Priority Substances Respiratory Health and Safety in the Flavor**

**Manufacturing Workplace**

Not listed

**US state regulations**

**US. Massachusetts RTK - Substance List**

Hydrochloric acid

**US. New Jersey Worker and Community Right-to-Know Act**

Hydrochloric acid

**US. Pennsylvania Worker and Community Right-to-Know Law**

Hydrochloric acid

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**SECTION 16: Other information**

Issue date: 02/15/2010

Revision 1: 02/11/2019

Revision 2: 07/03/2024

## SECTION 17: Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

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