

Safety Data Sheet

Hydrochloric Acid, 0.1M

CAROLINA
www.carolina.com

Section 1

Product Description

Product Name: Hydrochloric Acid, 0.1M
Recommended Use: Science education applications
Synonyms: Muriatic Acid
Distributor: Carolina Biological Supply Company, 2700 York Road, Burlington, NC 27215-3398
Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)
Chemtrec: 800-424-9300 (Transportation Spill Response 24 hours)

Section 2

Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

WARNING



Causes skin irritation. Causes serious eye irritation.

GHS Classification:

Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2

Section 3

Composition / Information on Ingredients

Chemical Name	CAS #	%
Water	7732-18-5	99.7
Hydrogen Chloride	7647-01-0	0.3

Section 4

First Aid Measures

Emergency and First Aid Procedures

Inhalation: In case of accident by inhalation: remove casualty to fresh air and keep at rest.
Eyes: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin Contact: IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Ingestion: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Section 5

Firefighting Procedures

Extinguishing Media: Use media suitable to extinguish surrounding fire.
Fire Fighting Methods and Protection: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Fire and/or Explosion Hazards: Fire or excessive heat may produce hazardous decomposition products.
Hazardous Combustion Products: Hydrogen chloride

Section 6

Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill.

Safety Data Sheet

Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

Section 7 Handling and Storage

Handling: Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
Storage: Keep container tightly closed in a cool, well-ventilated place.
Storage Code: Green - general chemical storage

Section 8 Protection Information

<u>Chemical Name</u>	<u>ACGIH</u>	<u>OSHA PEL</u>		
	(TWA)	(STEL)	(TWA)	(STEL)
No data available	N/A	N/A	N/A	N/A

Control Parameters

Engineering Measures: No exposure limits exist for the constituents of this product. General room ventilation might be required to maintain operator comfort under normal conditions of use.

Personal Protective Equipment (PPE): Lab coat, apron, eye wash, safety shower.

Respiratory Protection: No respiratory protection required under normal conditions of use.

Eye Protection: Wear chemical splash goggles when handling this product. Have an eye wash station available.

Skin Protection: Not normally considered a skin hazard. Where use can result in skin contact, practice good personal hygiene. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

Gloves: No information available

Section 9 Physical Data

Formula:	Vapor Pressure: No data available
Molecular Weight: 36.46 (Hydrogen Chloride)	Evaporation Rate (BuAc=1): No data available
Appearance: Colorless Liquid	Vapor Density (Air=1): No data available
Odor: Mild Pungent	Specific Gravity: Approx. 1
Odor Threshold: No data available	Solubility in Water: Soluble
pH: 1	Log Pow (calculated): No data available
Melting Point: No data available	Autoignition Temperature: No data available
Boiling Point: No data available	Decomposition Temperature: No data available
Flash Point: No data available	Viscosity: No data available
Flammable Limits in Air: No data available	Percent Volatile by Volume: No data available

Section 10 Reactivity Data

Reactivity: Not generally reactive under normal conditions.

Chemical Stability: Stable under normal conditions.

Conditions to Avoid: None known.

Incompatible Materials: Water-reactive materials

Hazardous Decomposition Products: Hydrogen chloride

Hazardous Polymerization: Will not occur

Section 11 Toxicity Data

Routes of Entry: Inhalation and ingestion.

Symptoms (Acute): Respiratory Irritation, Dermatitis

Delayed Effects: No data available

Acute Toxicity:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Inhalation LC50</u>
Water	7732-18-5	Not applicable		
Hydrogen Chloride	7647-01-0	ORAL LD50 Rat 700 mg/kg	DERMAL LD50 Rabbit > 5010 mg/kg	INHALATION LC50-1H Rat 3124 ppm

Carcinogenicity:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>IARC</u>	<u>NTP</u>	<u>OSHA</u>
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Hydrogen Chloride

7647-01-0

Not listed

Not listed

Not listed

Chronic Effects:

Mutagenicity: No evidence of a mutagenic effect.
Teratogenicity: No evidence of a teratogenic effect (birth defect).
Sensitization: No evidence of a sensitization effect.
Reproductive: No evidence of negative reproductive effects.
Target Organ Effects:
Acute: No data available
Chronic: No data available

Section 12**Ecological Data**

Overview: This material is not expected to be harmful to the ecology.
Mobility: This material is expected to have high mobility in soil. It absorbs weakly to most soil types.
Persistence: Dissolved into water, Evaporation into atmosphere, dissolved in water.
Bioaccumulation: Bioconcentration is not expected to occur.
Degradability: No data
Other Adverse Effects: No data

Chemical Name
Hydrogen Chloride

CAS Number
7732-18-5
7647-01-0

Eco Toxicity
96 HR LC50 GAMBUSIA AFFINIS 282 MG/L [STATIC]

Section 13**Disposal Information**

Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
Waste Disposal Code(s): If discarded, this product is considered a RCRA corrosive waste, D002.

Section 14**Transport Information**

Ground - DOT Proper Shipping Name:
Not regulated for transport by US DOT

Air - IATA Proper Shipping Name:
Not regulated for air transport by IATA.

Section 15**Regulatory Information**

TSCA Status: All components in this product are on the TSCA Inventory.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
Hydrogen Chloride	7647-01-0	Hydrochloric acid	5000 lb RQ	5000 lb final RQ; (2270 kg)	500 lb TPQ (gas only)	No

Section 16**Additional Information**

Revised: 02/20/2013

Replaces: 02/19/2013

Printed: 02-20-2013

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
CAS	Chemical Abstract Service Number	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
DOT	U.S. Department of Transportation	ppm	Parts per million
IARC	International Agency for Research on Cancer	RCRA	Resource Conservation and Recovery Act
N/A	Not Available	SARA	Superfund Amendments and Reauthorization Act
		TLV	Threshold Limit Value
		TSCA	Toxic Substances Control Act
		IDLH	Immediately dangerous to life and health

Safety Data Sheet

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Glossary

ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
CAS	Chemical Abstract Service Number	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
DOT	U.S. Department of Transportation	ppm	Parts per million
IARC	International Agency for Research on Cancer	RCRA	Resource Conservation and Recovery Act
N/A	Not Available	SARA	Superfund Amendments and Reauthorization Act
		TLV	Threshold Limit Value
		TSCA	Toxic Substances Control Act
		IDLH	Immediately dangerous to life and health

Safety Data Sheet

Acute Toxicity:

Chemical Name

Water

Hydrogen Chloride

CAS Number

7732-18-5

7647-01-0

Oral LD50

Not applicable

ORAL LD50 Rat
700 mg/kg

Dermal LD50

DERMAL LD50
Rabbit > 5010
mg/kg

Inhalation LC50

INHALATION
LC50-1H Rat 3124
ppm

Carcinogenicity:

Chemical Name

Hydrogen Chloride

CAS Number

7647-01-0

IARC

Not listed

NTP

Not listed

OSHA

Not listed

Chronic Effects:

Mutagenicity:

No evidence of a mutagenic effect.

Teratogenicity:

No evidence of a teratogenic effect (birth defect).

Sensitization:

No evidence of a sensitization effect.

Reproductive:

No evidence of negative reproductive effects.

Target Organ Effects:

Acute:

No data available

Chronic:

No data available

Section 12

Ecological Data

Overview:

This material is not expected to be harmful to the ecology.

Mobility:

This material is expected to have very high mobility in soil. It does not absorb to most soil types.

Persistence:

Evaporation into atmosphere, dissolved in water.

Bioaccumulation:

Bioconcentration is not expected to occur.

Degradability:

No data

Other Adverse Effects:

No data

Chemical Name

Water

Hydrogen Chloride

CAS Number

7732-18-5

7647-01-0

Eco Toxicity

No data available

Aquatic LC50 (96h) Mosquitofish (*Gambusia affinis*) 282 MG/L

Section 13

Disposal Information

Disposal Methods:

Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

Waste Disposal Code(s):

If discarded, this product is considered a RCRA corrosive waste, D002.

Section 14

Transport Information

Ground - DOT Proper Shipping Name:

UN 1789

Hydrochloric Acid

P.G. III

Class 8

Air - IATA Proper Shipping Name:

UN 1789

Hydrochloric Acid

P.G. III

Class 8

Section 15

Regulatory Information

TSCA Status:

All components in this product are on the TSCA Inventory.

Chemical Name

CAS
Number

§ 313 Name

§ 304 RQ

CERCLA RQ

§ 302 TPQ

CAA 112(2) TQ

Hydrogen Chloride

7647-01-0

Hydrochloric
acid

5000 lb
RQ

5000 lb final
RQ; (2270 kg)

500 lb TPQ
(gas only)

No

Section 16

Additional Information

Revised: 03/19/2013

Replaces: 02/14/2013

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