

## MURIATIC ACID

### SECTION 1. IDENTIFICATION

<b>Product Identifier</b>	MURIATIC ACID
<b>Other Means of Identification</b>	01010000
<b>Other Identification</b>	Hydrochloric Acid
<b>Recommended Use</b>	Acid etching, steel pickling, oil & gas, ore & mineral, food processing, pharmaceutical, organic chemical synthesis.
<b>Restrictions on Use</b>	None known.
<b>Manufacturer</b>	Lawrason's, Inc, 460 Wyecroft Road, Oakville, Ontario, L6K 2G7, (905) 842-8300, <a href="http://www.Lawrasons.com">www.Lawrasons.com</a>
<b>Supplier Identifier</b>	Lawrason's, Inc, 460 Wyecroft Road, Oakville, Ontario, L6K 2G7, (905) 842-8300, <a href="http://www.Lawrasons.com">www.Lawrasons.com</a>
<b>Emergency Phone No.</b>	CANUTEC, 1-888-CAN-UTEC (226-8832), 613-996-6666 or *666 on a cellular phone
<b>SDS No.</b>	01010P93, 01010D80, 01010C11
<b>Date of Preparation</b>	February 01, 2017

### SECTION 2. HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015) and the US Hazard Communication Standard (HCS 2012).

#### Classification

Corrosive to metals - Category 1; Acute toxicity (Oral) - Category 4; Acute toxicity (Inhalation) - Category 1; Skin corrosion - Category 1; Serious eye damage - Category 1; Specific target organ toxicity (single exposure) - Category 3

#### Label Elements



Signal Word:

Danger

Hazard Statement(s):

- H290 May be corrosive to metals.
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- H318 Causes serious eye damage.
- H335 May cause respiratory irritation.

Precautionary Statement(s):

- P234 Keep only in original packaging.
- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264 Wash hands and skin thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

water/shower.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P310 Immediately call a POISON CENTRE or doctor.

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 CENTRE or doctor.

P363 Wash contaminated clothing before reuse.

P390 Absorb spillage to prevent material damage.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P406 Store in corrosive resistant container with a resistant inner liner.

Disposal:

P501 Dispose of contents and container in accordance with local, regional, national and international regulations.

#### Other Hazards

Hazard Not Otherwise Classified (HNOC): None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers
Hydrochloric acid	7647-01-0	31.50-32.50	HCl

### SECTION 4. FIRST-AID MEASURES

#### First-aid Measures

##### Inhalation

If breathing is difficult, move person into fresh air. Keep at rest in a position comfortable for breathing. Immediately call a Poison Centre or doctor.

##### Skin Contact

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Rinse skin with water or shower. Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Immediately call a Poison Centre or doctor.

##### Eye Contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a Poison Centre or doctor.

##### Ingestion

Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Immediately call a Poison Centre or doctor.

### SECTION 5. FIRE-FIGHTING MEASURES

#### Extinguishing Media

##### Suitable Extinguishing Media

Not combustible. Use extinguishing agents compatible with product and suitable for surrounding fire. Carbon dioxide, dry chemical powder or appropriate foam.

##### Unsuitable Extinguishing Media

Water. Do not use water jet as an extinguisher, as this will spread the fire.

#### Specific Hazards Arising from the Product

May accumulate in hazardous amounts at ceilings and at the top of confined spaces, resulting in a health hazard.

#### Special Protective Equipment and Precautions for Fire-fighters

Use extreme caution. Fight fire from a safe distance or a protected location.

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## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet. Increase ventilation to area or move leaking container to a well-ventilated and secure area. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment.

### Environmental Precautions

It is good practice to prevent releases into the environment. Do not allow into any sewer, on the ground or into any waterway. If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas.

### Methods and Materials for Containment and Cleaning Up

Contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. Do not get in eyes, on skin or on clothing. Do not breathe in this product. Avoid generating vapours or mists.

### Conditions for Safe Storage

Store in an area that is: well-ventilated, cool, separate from incompatible materials (see Section 10: Stability and Reactivity), out of direct sunlight and away from heat and ignition sources.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Hydrochloric acid	2 ppm			5 ppm		

NIOSH IDLH: 50 ppm

OSHA = US Occupational Safety and Health Administration. ACGIH® = American Conference of Governmental Industrial Hygienists. PEL = Permissible Exposure Limits. TLV® = Threshold Limit Value. TWA = Time-Weighted Average.

### Appropriate Engineering Controls

General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

### Individual Protection Measures

#### Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

#### Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots. Wear a chemical splash suit and respiratory protection.

#### Respiratory Protection

Wear a NIOSH approved air-purifying respirator with an appropriate cartridge, wear a full facepiece NIOSH approved air-purifying respirator with an acid gas cartridge.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Basic Physical and Chemical Properties

Appearance	Colourless to yellow liquid.
Odour	Pungent
Odour Threshold	0.3 ppm Causes olfactory fatigue.
pH	< 1

<b>Melting Point/Freezing Point</b>	-30 °C (-22 °F) (melting); -30 °C (-22 °F) (freezing)
<b>Initial Boiling Point/Range</b>	> 100 °C (212 °F)
<b>Flash Point</b>	Not applicable
<b>Evaporation Rate</b>	Not available
<b>Flammability (solid, gas)</b>	Not available
<b>Upper/Lower Flammability or Explosive Limit</b>	Not available (upper); Not available (lower)
<b>Vapour Pressure</b>	84 mm Hg at 20 °C
<b>Vapour Density (air = 1)</b>	Not available
<b>Relative Density (water = 1)</b>	1.16 - 1.19
<b>Solubility</b>	Very soluble in water
<b>Partition Coefficient, n-Octanol/Water (Log Kow)</b>	Not available
<b>Auto-ignition Temperature</b>	Not available
<b>Decomposition Temperature</b>	Not available
<b>Viscosity</b>	Not available (kinematic); Not available (dynamic)
<b>Other Information</b>	
<b>Molecular Weight</b>	36.46
<b>Bulk Density</b>	1.05 - 1.18 kg/L

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions of use.

### Chemical Stability

Normally stable.

### Possibility of Hazardous Reactions

Hazardous polymerization does not occur.

### Conditions to Avoid

Incompatible materials. Prolonged exposure to high temperatures. Do not mix with other chemicals.

### Incompatible Materials

Bases, amines, metals, permanganates, (e.g. potassium permanganate), fluorine, metal acetylides, hexalithium disilicide.

### Hazardous Decomposition Products

Hydrogen chloride; chlorine; hydrogen gas.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Hydrochloric acid	3124 ppm (rat) (1-hour exposure)	900 mg/kg (rabbit)	5010 mg/kg (rabbit)

### Skin Corrosion/Irritation

Causes severe skin burns and eye damage.

### Serious Eye Damage/Irritation

Causes serious eye damage.

### STOT (Specific Target Organ Toxicity) - Single Exposure

#### Inhalation

Vapours and mist will irritate throat and respiratory system and cause coughing.

#### **Skin Absorption**

Causes skin burns.

#### **Ingestion**

Harmful if swallowed. Causes digestive tract burns. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract.

#### **Aspiration Hazard**

No information was located.

#### **STOT (Specific Target Organ Toxicity) - Repeated Exposure**

May cause irritation of the respiratory system. May cause respiratory tract injury.

#### **Respiratory and/or Skin Sensitization**

No information was located.

#### **Carcinogenicity**

No ingredients of this product have been evaluated for carcinogenicity by the International Agency for Research on Cancer (IARC), the American Conference of Governmental Industrial Hygienists (ACGIH®) or the US National Toxicology Program (NTP). or the US Occupational Safety and Health Administration (OSHA).

#### **Reproductive Toxicity**

##### **Sexual Function and Fertility**

Not known to cause effects on sexual function or fertility.

#### **Germ Cell Mutagenicity**

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

## **SECTION 12. ECOLOGICAL INFORMATION**

#### **Ecotoxicity**

Because of the low pH of this product, it would be expected produce significant Ecotoxicity upon exposure to aquatic organisms and aquatic systems.

#### **Persistence and Degradability**

Not biodegradable.

Hydrochloric acid will likely be neutralized to chloride by alkalinity present in natural environment.

#### **Bioaccumulative Potential**

No information was located.

#### **Mobility in Soil**

No information was located.

#### **Other Adverse Effects**

There is no information available.

## **SECTION 13. DISPOSAL CONSIDERATIONS**

#### **Disposal Methods**

Dispose of contents and container in accordance with local, regional, national and international regulations. This product and its container must be disposed of as hazardous waste. Do NOT dump into any sewers, on the ground or into any body of water.

## **SECTION 14. TRANSPORT INFORMATION**

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
US DOT	1789	Hydrochloric acid (Hydrochloric acid)	8	II
IATA (Air)	1789	Hydrochloric acid (Hydrochloric acid)	8	II

**Environmental Hazards** Not applicable

**Special Precautions** Not applicable

**Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

## SECTION 15. REGULATORY INFORMATION

### Safety, Health and Environmental Regulations

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313: Hydrochloric acid CAS-No. 7647-01-0

SARA 311/312 Hazards

Acute Health Hazard.

#### Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by the Controlled Products Regulations.

#### Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Listed on the DSL.

#### USA

##### Additional USA Regulatory Lists

SARA Title III - Section 302: SARA Title III - Section 313.

Massachusetts Right To Know Components Hydrochloric acid CAS-No. 7647-01-0

Pennsylvania Right To Know Components Hydrochloric acid CAS-No. 7647-01-0

New Jersey Right To Know Components Hydrochloric acid CAS-No. 7647-01-0

California Prop. 65 Components This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

## SECTION 16. OTHER INFORMATION

**NFPA Rating**      **Health - 3**      **Flammability - 0**      **Instability - 1**

**SDS Prepared By**      Technical Manager

**Phone No.**      905-842-8300

**Date of Preparation**      February 01, 2017

**Date of Last Revision**      February 01, 2017

**References**      CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS). HSDB® database. US National Library of Medicine. Available from Canadian Centre for Occupational Health and Safety (CCOHS). NIOSH Pocket Guide database. National Institute for Occupational Safety and Health. Available from Canadian Centre for Occupational Health and Safety (CCOHS). Registry of Toxic Effects of Chemical Substances (RTECS®) database. Dassault Systèmes/BIOVIA ("BIOVIA"). Available from Canadian Centre for Occupational Health and Safety (CCOHS).

**Additional Information**      All information is based upon our current knowledge and experience of our product and is not exhaustive. It applies to the product as defined by the specifications. In case of combinations of mixtures, one must confirm that no new hazards are likely to exist. In any case, the user is not exempt from observing all legal, administrative and regulatory procedures relating to the product, personal hygiene, and integrity of the work environment. (Unless noted to the contrary,

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