

MURIATIC ACID

SECTION 1. IDENTIFICATION

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

Product Identifier: MURIATIC ACID

Date of Preparation: February 01, 2017

Page 02 of 07

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

Product Identifier: MURIATIC ACID
Date of Preparation: February 01, 2017

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

Product Identifier: MURIATIC ACID
Date of Preparation: February 01, 2017

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,

Product Identifier: MURIATIC ACID

Date of Preparation: February 01, 2017

Page 06 of 07

the technical information applies only to pure product). To our actual knowledge, the information contained herein is accurate as of the date of this document. However, neither Lawrason's, Inc. nor any of its affiliates makes any warranty, express or implied, or accepts any liability in connection with this information or its use. This information is for use by technically skilled persons at their own discretion and risk and does not relate to the use of this product in combination with any other substance or any other process. The user alone must finally determine suitability of any information or material for any contemplated use in compliance with applicable law, the manner of use and whether any patents are infringed. This information gives typical properties only and is not to be used for specification purposes. Lawrason's Inc. reserves the right to make additions, deletions or modifications to the information at any time without prior notification.

Disclaimer

While the company believes the data set forth herein are accurate as of the date hereof, the company makes no warranty with respect thereto and expressly disclaims all liability for reliance thereon. Such data are offered solely for your consideration, investigation and verification.