



Safety Data Sheet

Better Chemistry. Better Business

MURIATIC ACID 20 DEGREE

Revised: 4/29/21

1 IDENTIFICATION

Product Name: MURIATIC ACID 20 DEGREE

Product Code :4011002

Recommended use of the chemical and restrictions on use:Industrial applications

Hubbard-Hall Inc.

563 South Leonard Street

Waterbury, CT 06708

Telephone: 203-756-5521

Fax number: 203-756-9017

Emergency Phone Number

CHEMTREC: 1 (800) 424-9300

International: 1 (703) 527-3887

2 HAZARDS IDENTIFICATION



Signal Word: DANGER

Hazard Category: Acute Toxicity-Oral Hazard Category 4

Eye Damage/Irritation Hazard Category 1

Skin Corrosion/Irritation Hazard Category 1A

Acute Toxicity-Inhalation Hazard Category 4

Specific Target Organ Toxicity (Single Exposure) Hazard Category 3

Corrosive to Metals Hazard Category 1

Acute Aquatic Toxicity-Category 2

Hazard Statements: Harmful if swallowed or inhaled.

Causes severe skin burns and eye damage.

May be corrosive to metals.

May cause respiratory irritation.

Toxic to aquatic life

Prevention: Wash skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

Avoid breathing dust, fumes, gas, mist, vapors and sprays.

Wear rubber gloves, goggles and chemical protective clothing.

Use only outdoors or in well ventilated area.

Keep only in original container.

Response: If swallowed: Rinse mouth. Do NOT induce vomiting.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Wash contaminated clothing before reuse.

If inhaled: Remove person to fresh air and keep comfortable for breathing. Call poison center/doctor if you feel unwell.

Immediately call poison center or doctor and explain the type of exposure to the chemical(s) and provide the name of the chemical(s).

Specific treatment - refer to poison center or doctor for advice.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Absorb spillage to prevent material damage.

Storage: Store locked up.

Store in corrosive resistant high density polyethylene container.

Store in well ventilated place. Keep container tightly closed.

Disposal: Dispose of contents/container in accordance with local, regional, national, or international regulations.

3 COMPOSITION INFORMATION

Chemical Name	Common Name And Synonyms	CAS No. and other Unique identifiers	Concentration %
Hydrochloric Acid	Muriatic Acid	7647-01-0	33-40%

4 FIRST AID

After Inhalation:

Remove from contaminated atmosphere. If breathing has ceased, clear the victim's airway and start mouth-to-mouth artificial respiration, which may be supplemented by the use of a bag-mask respirator, or manually triggered, oxygen supply capable of delivering 1 liter/second or more. If the victim is breathing, oxygen may be administered from a demand-type or continuous flow inhaler, preferably with a physician's advice. Contact a physician immediately.

After Skin Contact:

Immediately remove contaminated clothing under a safety shower. Flush all affected areas with large amounts of water for 15 minutes. DO NOT attempt to neutralize with chemical agents. Obtain medical advice.

After Eye Contact:

Immediately flush the eyes with large quantities of running water for 15 minutes. Hold the eyelids apart during the flushing to ensure rinsing of the entire surface of the eyelids with water. DO NOT attempt to neutralize with chemical agents. Obtain medical attention as soon as possible. Oils or ointments should not be used. Continue rinsing for an additional 15 minutes if the physician is not available.

After Ingestion:

DO NOT induce vomiting. Immediately give large quantities of water or milk, if available. If vomiting does occur, give fluids again. Never give anything by mouth to an unconscious person. Call a physician or the nearest Poison Control Center.

Most Important Symptoms/Effects

Delayed:

Will aggravate breathing disorders.

5 FIRE FIGHTING MEASURES

Suitable and Unsuitable extinguishing media:

If involved in a fire, use water spray. Neutralize with soda ash or slaked lime.

Specific hazards arising from the chemical:

This product may release flammable hydrogen gas on contact with metal, which may significantly contribute to the risk of fire and explosion.

Special protective equipment and precautions for firefighter

In the event of a fire, wear full protective clothing and NIOSH approved self contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Structural firefighter's protective clothing is ineffective for fires involving this material Stay away from ends of tanks. Cool tanks with water spray until well after fire is out.

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, & Emergency Proc

Prevent spilled product from drains, sewers, waterways and soil.

Methods and Materials for containment & cleaning up:

Neutralize spill with soda ash or lime under good ventilation. For an interior (inside a closed space) spill be aware that the use of Soda Ash, Lime will evolve heat and carbon dioxide thus the need for ventilation.

If trained in accordance 29 CFR 1910.120, leaks should be stopped. Spills should be contained and cleaned immediately. Persons performing clean up work should wear adequate personal protective equipment and clothing. Spills and releases should be reported, if required, to the appropriate local, state and federal regulatory agencies.

7 HANDLING AND STORAGE

Precautions for safe handling:

- Use in well ventilated area.
- Avoid breathing dust, fumes, gas, mist, vapors and sprays.
- Wear rubber protective gloves, chemical protective clothing, eye protective goggles and face shield for face protection.
- Keep only in original container .
- Wash hands thoroughly after handling.
- Do not get in eyes, or on skin, or on clothing.

Conditions for safe storage, inc any incompatibilities:

- Keep container tightly closed.
- Store locked up and away from incompatible chemicals.
- Store in a well ventilated place. Keep cool .
- Store in corrosive resistant container.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Name	Std.	TWA-8hrs	STEL - 15 min.
Hydrochloric Acid	ACGIH	2 pm	-

ACGIH - American Control of Governmental Hygenists
OSHA - Occupational Safety and Health Administration

Ventilation: Use local exhaust to keep personal exposures below the OSHA Permissible Exposure Limit (s) (PEL) or the ACGIH threshold Limit Values (TLV)Time Weight Average (TWA).

Respiratory Protection: A respiratory protection program that meets OSHA 29 CFR 1910.134 and ANSI 788.2 or applicable federal requirements must be followed whenever work place conditions warrant respirator use. NIOSH's Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

Protective Gloves: Acid resistant rubber.

Eye Protection: Wear chemical safety goggles with face shield.

Other Protective Equipment: Wear rubber gloves, goggles and chemical protective clothing.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Colorless to light yellow liquid
Odor:	Pungent, strong
Odor Threshold:	N/A
PH:	<1.5 Acidic, in solution
Melting Point/Freezing Point:	approx -45 °C (-49 °F)
Initial Boiling Point and Boiling Range:	81.11-85 °C (178 -185 °F)
Evaporation Rate:	N/A
Flammability (solid, gas):	N/A
Upper/Lower flammability or explosive limits:	N/A
Vapor Pressure:	N/A
Relative Density:	1.13-1.19
Solubility (ies):	Complete in water
Partition Coefficient; n-octanol/water:	N/A
Auto-ignition Temperature:	N/A
Decomposition Temperature:	N/A
Viscosity:	N/A

10 STABILITY AND REACTIVITY

Chemical Stability:	Stable
Conditions to Avoid:	Extremely reactive. Avoid contact with metal surfaces and oxidizing agents.
Incompatible Materials:	Chemically stable when properly contained and handled. It is a strong mineral acid and reacts with many metals and metal oxides and hydroxides to form equivalent metal chloride. It reacts with zeolites and other silicious compounds to form Hydrosilicic Acid; it reacts with carbonates to form Carbon Dioxide and water. It is oxidized by Oxygen or electrolysis to form Chlorine, a lethal poisonous gas. It reacts with alkaline compounds to form neutral salt. It is a hydrolyzing agent for carbohydrates, esters and other compounds. It's reaction with most metals will produce Hydrogen, an explosive gas. Violent reactions will result with acetic anhydride, 2-aminoethanol, ammonia hydroxide, calcium phosphide, chlorosulfonic acid, ethylene diamine, ethylene imine, oleum, perchloric acid, beta propiolactone, propylene oxide, sodium hydroxide, uranium phosphide and vinyl acetate. This listing is not all inclusive.
Hazardous Decomposition Products:	Extreme heat may cause the product to decompose, producing toxic fumes which may include chlorine compounds.

11 TOXICOLOGICAL INFORMATION

Oral Administration:	Hydrochloric Acid-LD50:700 mg/kg (31.5%) rat
Inhalation:	Corrosive! Inhalation on vapors can cause coughing, choking, inflammation of the nose, throat, and upper respiratory tract, and in severe cases, pulmonary edema, circulatory failure, and death.
Dermal administration:	Hydrochloric Acid-LD50:>5010 mg/kg (31%) Rabbit
Short term exposure:	Hydrogen Chloride, both as a gas and in a solution such as Hydrochloric Acid, is a corrosive substance and can cause painful burns on contact with any part of the body or if taken internally. The mucous membranes of the eyes and upper respiratory tract are especially susceptible to the irritating effects of high atmospheric concentrations of Hydrogen Chloride. The gas or vapor is so penetrating and pungent that when high concentrations do occur, those exposed should immediately leave the contaminated area.
Long term exposure:	Long term exposure to concentrated vapors may cause erosion of the teeth. Long term exposure seldom due to corrosive properties of the acid.

Numerical measures of toxicity(such as toxicity measurement) Hydrochloric Acid-Inhalation-LC50: 1.68mg/L, 1 h (rat) LC50: 4.72 mg/L, 1 h (rat)
Cancer Hazard: Not listed by IARC, NTP, OSHA, ACGIH
Routes of Exposure Eyes, Skin, Inhalation, Ingestion

12 ECOLOGICAL INFORMATION

Persistence and Degradability: Not Available
Abiotic degradability: No data available
Bioaccumulation potential: No data available
Soil/Sediment Result: Pronounced solubility and mobility

13 DISPOSAL CONSIDERATION

Dispose of in accordance with local, state and federal regulations.

14 TRANSPORT INFORMATION

UN Number: 1789
UN Proper Shipping Name: HYDROCHLORIC ACID, SOLUTION,
Transport Hazard Class (es): 8

15 REGULATORY INFORMATION

HMIS: Health: 3 Flammability: 0 Reactivity: 0

Cercla rq 5000 LBS-Hydrochloric Acid

Sara Hazard Classification SARA 302 - Extremely Hazardous Substances; Hydrochloric Acid

Sara Hazard Classification * THIS SUBSTANCE IS A CHEMICAL SUBJECT TO SARA TITLE III, SECTION 313 REPORTING REQUIREMENTS.

Proposition 65 No Proposition 65 listed components in this formula

TSCA Inventory Status All components of this product are on the TSCA inventory or are exempt from TSCA inventory requirements .

16 OTHER INFORMATION

REACH status No RoHS or REACH SVHC are contained in this product.

Disclaimer: The information is based on our knowledge to date but does not constitute an assurance of product properties and does not imply a legal contractual relationship.

Date Prepared: 9/18/14