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Safety Data Sheet

OSHA Hazard Communication Standard 29 CFR 1910.1200. Prepared to GHS Revision 03.

Date Revised: 5/7/2015

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:	Muriatic Acid 20° Baume
Synonyms:	Hydrochloric Acid, Hydrogen Chloride Solution
Product Use:	Industrial/Manufacturing use only
Manufacturer:	Chautauqua Chemicals Co., Inc. 4743 Cramer Drive PO Box 100 Ashville, NY 14710 USA Tel. 1 (716) 763-4114
Emergency Phone:	CHEMTREC (USA): 1 (800) 424-9300

2. HAZARD CLASSIFICATION

GHS Classification:

Health		Physical	
Skin Corrosion:	*Category 1A*	Corrosive to Metals	*Category 1*
Eye Damage:	*Category 1*		
Specific Target Organ Toxicity - Single Exposure	*Category 3*		

GHS Label:

Signal Word: DANGER

Hazard Statements

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.

Precautionary Statements

Prevention

P234	Keep only in original container.
P261	Avoid breathing fumes, gases, mists, vapors, or spray.
P264	Wash hands and skin surfaces exposed to material thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves, protective clothing, eye protection, and face protection.

Response

P301+ P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
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 CENTER or physician.
P321	Specific treatment: See corresponding SDS for specific handling instructions.
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 a corrosive resistant container with a resistant inner liner.
Disposal	
P501	Dispose of contents/container in accordance with local, regional, national, and international regulations for disposal.

3. COMPOSITION/INFORMATION OF INGREDIENTS

Ingredient	CAS No.	NIOSH (RTECS) No.	Percent (w/w)	Classification
Hydrochloric Acid	7647-01-0	MW4025000	10 – 36.9 %	H290, H314, H335
Water	7732-18-5	ZC0110000	Balance	Non-Hazardous

4. FIRST AID MEASURES

General Advice/Information:	Move out of dangerous area. Consult a physician. Show this safety data sheet to a doctor in attendance.
Inhalation:	If breathed in, move person to fresh air. If breathing is irregular, if respiratory arrest occurs, or if not breathing, give artificial respiration or oxygen. Consult a physician immediately.
Skin Contact:	Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Immediately take victim to hospital. Immediately consult a physician. Wash clothing before reuse.
Eye Contact:	Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Remove contact lenses. Consult a physician immediately.
Ingestion:	Do not induce vomiting. Rinse mouth with water and drink 1-2 glasses of water or milk. If vomiting occurs, lower victim's head below hips to prevent inhalation of material. Never give anything by mouth to an unconscious person. Consult a physician immediately.
Important Symptoms (Acute):	Corrosive to eyes and skin, causes chemical burns and may result in blindness. Causes burns if swallowed. May cause serious permanent damage.
Important Symptoms (Delayed):	Prolonged or repeated exposure can cause permanent damage.
Indication of any Immediate Medical Care/Special Treatment:	No further relevant information available.

5. FIREFIGHTING MEASURES

Conditions of Flammability:	Not flammable or combustible
Fire Extinguishing Media:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Exposure Hazards:	See Section 4 and Section 10 for information on hazards when this material is present in the area of a fire.
Protection for Firefighters:	In event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.
Further Information:	Product reacts with metals producing flammable hydrogen gas. Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Wear appropriate personal protective equipment as specified in Section 8. Avoid mist formation. Avoid breathing fumes, gases, mists, vapors, or spray. Ensure adequate ventilation. Evacuate personnel to safe areas.
Environmental Precautions:	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. In the event of significant spills local authorities should be notified.
Cleanup Methods/Materials:	For small spills: Carefully dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary, neutralize spilled material and residues. For large spills: Stop leak if without risk. Absorb with dry earth, sand or other non-combustible material. Do not get water inside container. Do not touch

spilled material. Use water spray curtain to divert vapor drift. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Carefully neutralize residues and spilled material. Be careful that the product is not present at a concentration level above those specified in Section 8. Contact a waste disposal expert for assistance.

7. HANDLING AND STORAGE

Handling: Avoid breathing fumes, gases, mists, vapors, or spray. Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke while handling. Ensure adequate ventilation/fume exhaust hoods. Ensure that eyewash stations and safety showers are proximal to work-station location. Keep away from metals. Use corrosion resistant pumps and hoses for handling. Dilution with water causes heating. Always add acid to water. *Never add water to acid.*

Storage: Store in original container, away from substances listed in Section 10. Keep container tightly closed in a dry and well-ventilated place. Follow all precautionary information on container label.

Storage Temperature

- Keep Above: 2° C (36° F)
- Keep Below: 35° C (95° F)

Shelf Life (Days): 730 Days

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with Workplace Control Parameters

Components	CAS No.	ACGIH TLV		NIOSH REL		OSHA PEL
		(TWA)	(CEIL)	(TWA)	(CEIL)	(TWA)
Hydrochloric Acid	7647-01-0	No Data	2 ppm	No Data	7 mg/m^3	7 mg/m^3

Personal Protective Equipment (PPE):

Skin Protection: Handle with gloves. Nitrile rubber, or other impervious material is appropriate. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye Protection: Avoid contact with eyes, wear splash-proof chemical goggles, face shield, safety glasses (spectacles) with brow guards and side shields, etc. as may be appropriate for the exposure. Use equipment for eye protection tested under appropriate government standards such as NIOSH.

Body Protection: Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Prevent contact with skin. Appropriate gloves should be worn at all times while handling.

Respiratory Protection: Wear NIOSH or MSHA approved, dust/mist-type respirators, where dust or mist may be generated. Prevent inhalation of mists. Use in a well-ventilated room. Open doors and/or windows to ensure airflow and air changes. Mechanical ventilation may be required if product mist is created in processing. Use local exhaust ventilation to remove airborne contaminants from employee breathing zone and to keep contaminants below levels listed above.

Hygiene Measures: Handle in accordance to good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

- Form: Clear Liquid
- Color: Colorless to Light Yellow

Safety Data

- pH: < 1 at 25 °C (77 °F)
- Melting/Freezing Point: - 62.5 °C (-80.5 °F)

Boiling Point and Range:	84 °C (183 °F)
Flash Point:	Not Applicable
Auto-ignition Temperature:	No Data Available
Decomposition Temperature:	No Data Available
Flammability:	No Data Available
Lower Flammability Limit:	No Data Available
Upper Flammability Limit:	No Data Available
Vapor Pressure:	4.7 kPa (35 mmHg) at 25 °C (77 °F)
Vapor Density:	No Data Available
Density:	1.18 g/mL at 22 °C (71.6 °F)
Solubility:	Soluble
Partition Coefficient:	
n-octanol/water	No Data Available
Viscosity:	No Data Available
Percent Volatile:	100% (w/w)
Odor:	Pungent Odor
Odor Threshold:	No Data Available
Evaporation Rate:	> 1 (Butyl Acetate = 1)

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal conditions of storage and use.
Possibility of Hazardous Reactions:	No Data Available
Hazardous Decomposition Products:	Hydrogen chloride gas.
Conditions to Avoid:	Incompatible materials, direct sunlight and extreme temperatures.
Incompatible Materials:	Bases, oxidizing agents, cyanides, amines, alkali metals, metals, permanganates (e.g. potassium permanganate), fluorine, metal acetylides, hexalithium disilicide, hydroxides, sulfides, carbonates, hypochlorites, formaldehyde.

11. TOXICOLOGY INFORMATION

Toxicity

	LD_{50}	LC_{50}
Hydrochloric Acid	Dermal – 5010 mg/kg (Rabbit)	No Data Available

Reproductive Effects	Teratogenicity	Mutagenicity	Embryotoxicity	Sensitization	Synergistic Products
No Data Available	No Data Available	No Data Available	No Data Available	No Data Available	No Data Available

Carcinogenicity

NTP:	No component of this product present at levels ≥ 0.1% is identified as probable, possible or confirmed human carcinogen.
IARC:	Group 3 (Hydrochloric Acid): Not classifiable as to its carcinogenicity to humans.
Likely Routes of Exposure:	Eye and skin contact, Inhalation.
Specific Target Organ Toxicity	
Single Exposure:	Eye and skin contact, Inhalation – Causes severe chemical burns to exposed tissues. Material is extremely destructive to mucous membranes and respiratory tract.
Repeated Exposure:	Eye and skin contact, Inhalation – Causes permanent damage to exposed tissues, mucous membranes and respiratory tract.
Potential Health Effects	
Inhalation	Harmful if inhaled. Material is extremely destructive to the tissues of the mucous membranes and upper respiratory tract.
Skin	Corrosive to skin. Causes chemical burns resulting in permanent scarring.
Eyes	Causes severe eye burns. May cause permanent damage to eye tissue and/or loss of vision.

Ingestion	Harmful if swallowed. Causes severe burns of the mouth and esophagus.
Signs of Symptoms and Exposure:	Respiratory tract irritation, irritation of throat, eyes, and exposed skin surfaces. Skin rash or inflammation.
Additional Information:	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated at product concentrations.

12. ECOLOGICAL INFORMATION

Toxicity

Hydrochloric Acid

Fish:	Mosquito Fish (LC_{50}) = 282 mg/L (96 hr) Bluegill (LC_{50}) = 3.6 mg/L (48 hr) *Leuciscus idus* (LC_{50}) = 862 mg/L
Mobility:	Water soluble.
Degradability:	Inorganic substance that is not biodegradable.
Bioaccumulation:	None expected.
General Notes:	Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Material is expected to be harmful to aquatic organisms due to the shift in pH of the receiving system.

13. DISPOSAL CONSIDERATIONS

Recommendation:	Do not allow to reach sewage system. Check pH of waste to be disposed. Neutralize if necessary. Care must be taken when using or disposing of chemical materials and/or their containers to prevent environmental contamination. It is your duty to dispose of the chemical materials and/or their containers in accordance with all federal, state, or local laws and regulations. Consult disposal expert.
Contaminated Packaging:	Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN Number: 1789	Class: 8 Packing Group: II
UN Proper Shipping Name:	HYDROCHLORIC ACID
Marine Pollutant:	No
Poison Inhalation Hazard:	No
Component Reportable Quantity:	5000 Lbs (Hydrochloric Acid)
Product Reportable Quantity:	Exceeds product packaging size.

15. REGULATORY INFORMATION

U.S. Toxic Substances Control Act	All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

Superfund Amendments and Reauthorization Act (SARA)

SARA 302 Components:	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components:	Hydrochloric Acid (CAS No. 7647-01-0)
SARA 311/312 Hazards:	Acute Health Hazard, Reactive Hazard

Clean Air Act

Hazardous Air Pollutants:	Hydrochloric Acid (CAS No. 7647-01-0)
Class I Substances	None
Class II Substances	None.
Proposition 65:	This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

HMIS Rating:	Health: 3	Flammability: 0	Reactivity: 1
SDS Number:	52914A		
Revision Date:	May 7, 2015		

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