



10% Muriatic Acid (AFCO 0216)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision Date: 01/12/2023

Version: 1.1

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: 10% Muriatic Acid

Product Code: AFCO 0216

Intended Use of the Product:

Acid used for pH adjustment of sewer effluent and for descaling equipment. For professional use only.

Name, Address, and Telephone of the Responsible Party

Company

AFCO

800 Development Avenue

Chambersburg, PA 17201

T: 800-345-1329

www.afcocare.com

Emergency Telephone Number

Emergency Number : 1-800-424-9300 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Met. Corr. 1 H290

Skin Corr. 1B H314

Eye Dam. 1 H318

STOT SE 3 H335

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)

:



GHS05



GHS07

Signal Word (GHS-US)

: Danger.

Hazard Statements (GHS-US)

: H290 - May be corrosive to metals
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage
H335 - May cause respiratory irritation

Precautionary Statements (GHS-US)

: P234 - Keep only in original container.
P260 - Do not breathe mist, spray, vapors.
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 - Wash hands, forearms, and exposed areas thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P280 - Wear eye protection, face protection, protective clothing, protective gloves.
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - IF INHALED: Remove person 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 doctor/physician.

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P312 - Call a POISON CENTER/doctor/physician if you feel unwell.
P321 - Specific treatment (see Section 4).
P363 - Wash contaminated clothing before reuse.
P390 - Absorb spillage to prevent material damage.
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.
P501 - Dispose of contents/container according to local, regional, national, territorial, provincial, and international regulations.

Other Hazards

Other Hazards: May be corrosive to the respiratory tract. When heated to decomposition, emits toxic fumes. Contact with metals may evolve flammable hydrogen gas.

Unknown Acute Toxicity (GHS-US) Not available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Name	Product identifier	% (w/w)	Classification (GHS-US)
Water	(CAS No) 7732-18-5	80-90	Not classified
Hydrogen chloride	(CAS No) 7647-01-0	10-20	Met. Corr. 1, H290 Acute Tox. 3 (Inhalation: gas), H331 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335

Full text of H-phrases: see section 16.

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

Skin Contact: Remove contaminated clothing. Rinse cautiously with water for at least 30 minutes. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse.

Eye Contact: Rinse cautiously with water for at least 60 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms and Effects Both Acute and Delayed

General: Causes severe skin burns and eye damage. Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

Inhalation: May be corrosive to the respiratory tract.

Skin Contact: Causes severe skin burns and eye damage.

Eye Contact: Causes serious eye damage.

Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: None expected under normal conditions of use.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use a heavy water stream. A heavy water stream may spread burning liquid.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not flammable.

Explosion Hazard: Product is not explosive, however contact with metals may release explosive hydrogen gas.

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Reactivity: Thermal decomposition generates: Corrosive vapors and toxic fumes. Reacts violently with strong bases.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Do not breath fumes from fires or vapors from decomposition. Stop leak if safe to do so. Do not allow run-off from fire fighting to enter drains or water sources.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Hydrogen chloride.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid all contact with skin, eyes, or clothing. Avoid breathing (vapor, mist, spray). Avoid contact with metal.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel. Stop leak if safe to do so. Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters.

Methods and Material for Containment and Cleaning Up

For Containment: Cautiously neutralize spill with soda ash. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Clear up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material, then place in suitable container. Ventilate area. Contact competent authorities after a spill.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Store in a dry, cool and well-ventilated place. Store in original container. Store locked up. Keep container closed when not in use. Keep away from heat, extremely high temperatures and incompatible materials.

Incompatible Materials: Strong bases.

Specific End Use(s): Acid used for pH adjustment of sewer effluent and for descaling equipment. For professional use only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Hydrogen chloride (7647-01-0)		
Mexico	OEL Ceiling (mg/m ³)	7 mg/m ³
Mexico	OEL Ceiling (ppm)	5 ppm
USA ACGIH	ACGIH Ceiling (ppm)	2 ppm
USA OSHA	OSHA PEL (Ceiling) (mg/m ³)	7 mg/m ³
USA OSHA	OSHA PEL (Ceiling) (ppm)	5 ppm
USA NIOSH	NIOSH REL (ceiling) (mg/m ³)	7 mg/m ³
USA NIOSH	NIOSH REL (ceiling) (ppm)	5 ppm
USA IDLH	US IDLH (ppm)	50 ppm
Ontario	OEL Ceiling (ppm)	2 ppm
Québec	PLAFOND (mg/m ³)	7.5 mg/m ³

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Québec	PLAFOND (ppm)	5 ppm
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Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Alarm detectors should be used when toxic gases may be released. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Personal Protective Equipment: Safety glasses. Face shield. Corrosionproof clothing. Gloves. Protective goggles. Insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles or safety glasses. Chemical goggles or face shield.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear approved mask.

Consumer Exposure Controls: Do not eat, drink, or smoke during use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Clear, colorless
Odor	: Highly acidic
Odor Threshold	: Not available
pH	: <2
Relative Evaporation Rate (butylacetate=1)	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: 99°C (210°F)
Flash Point	: Not flammable
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not flammable
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20°C	: Not available
Specific Gravity	: 1.05
Solubility	: Complete in water
Partition coefficient: n-octanol/water	: Not available
Viscosity	: Not available
Explosion Data – Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact
Explosion Data – Sensitivity to Static Discharge	: Not expected to present an explosion hazard due to static discharge

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SECTION 10: STABILITY AND REACTIVITY

Reactivity: Thermal decomposition generates: Corrosive vapors, toxic fumes. Reacts violently with strong bases.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: Hazardous reactions will not occur under normal conditions.

Conditions to Avoid: Heat, extremely high temperatures. Incompatible materials.

Incompatible Materials: Strong bases.

Hazardous Decomposition Products: Thermal decomposition generates: Corrosive vapors. Hydrogen chloride.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not classified.

LD50 and LC50 Data: Not available.

Skin Corrosion/Irritation: Causes severe skin burns. (pH: <2)

Serious Eye Damage/Irritation: Causes serious eye damage. (pH: <2)

Respiratory or Skin Sensitization: Not classified.

Germ Cell Mutagenicity: Not classified.

Teratogenicity: Not available.

Carcinogenicity: Not classified.

Specific Target Organ Toxicity (Repeated Exposure): Not classified.

Reproductive Toxicity: Not classified.

Specific Target Organ Toxicity (Single Exposure): May cause respiratory irritation.

Aspiration Hazard: Not classified.

Symptoms/Injuries After Inhalation: May cause respiratory irritation.

Symptoms/Injuries After Skin Contact: Causes severe skin burns.

Symptoms/Injuries After Eye Contact: Causes serious eye damage.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: None expected under normal conditions of use.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Hydrogen chloride (7647-01-0)	
LD50 Oral Rat	700 mg/kg
LD50 Dermal Rabbit	> 5010 mg/kg
LC50 Inhalation Rat	781 ppm/4h (reported as 3124 ppm/1 h)
IARC Group	3

SECTION 12: ECOLOGICAL INFORMATION

Toxicity Not classified.

Persistence and Degradability

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Persistence and Degradability	Not established.

Bioaccumulative Potential

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Bioaccumulative Potential	Not established.

Mobility in Soil Not available.

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Sewage Disposal Recommendations: Do not empty into drains; dispose of this material and its container in a safe way.

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations. RCRA Waste Code: D002 (Corrosive Material).

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SECTION 14: TRANSPORT INFORMATION

14.1 In Accordance with DOT

Proper Shipping Name : HYDROCHLORIC ACID
Hazard Class : 8
Identification Number : UN1789
Label Codes : 8
Packing Group : II
Marine Pollutant : No
ERG Number : 157



14.2 In Accordance with IMDG

Proper Shipping Name : HYDROCHLORIC ACID
Hazard Class : 8
Identification Number : UN1789
Packing Group : II
Label Codes : 8
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B
Marine pollutant : No
MFAG Number : 157



14.3 In Accordance with IATA

Proper Shipping Name : HYDROCHLORIC ACID
Packing Group : II
Identification Number : UN1789
Hazard Class : 8
Label Codes : 8
ERG Code (IATA) : 8L



14.4 In Accordance with TDG

Proper Shipping Name : HYDROCHLORIC ACID
Packing Group : II
Hazard Class : 8
Identification Number : UN1789
Label Codes : 8
Marine Pollutant (TDG) : No



SECTION 15: REGULATORY INFORMATION

US Federal Regulations

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SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard. Delayed (chronic) health hazard.
Hydrogen chloride (7647-01-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory. Listed on SARA Section 302 (Specific toxic chemical listings). Listed on SARA Section 313 (Specific toxic chemical listings).	
SARA Section 302 Threshold Planning Quantity (TPQ)	500 (gas only).
SARA Section 313 - Emission Reporting	1.0% (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size).
Water (7732-18-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

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US State Regulations

Hydrogen chloride (7647-01-0)

U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Acute
U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Chronic
U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728)
U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances
U.S. - New Jersey - Environmental Hazardous Substances List
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New Jersey - Special Health Hazards Substances List
U.S. - New Jersey - TCEPA - Extraordinarily Hazardous Substances (EHS)
U.S. - New York - Occupational Exposure Limits - Ceilings
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
RTK - U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

Canadian Regulations

Hydrogen chloride (7647-01-0)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List) inventory.

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

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision date : 01/12/2023

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

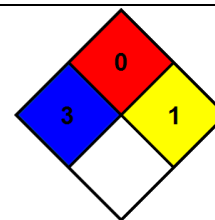
GHS Full Text Phrases:

Acute Tox. 3 (Inhalation: gas)	Acute toxicity (inhalation: gas) Category 3
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Met. Corr. 1	Corrosive to metals Category 1
Skin Corr. 1B	Skin corrosion/irritation Category 1B
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H290	May be corrosive to metals
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H331	Toxic if inhaled
H335	May cause respiratory irritation

NFPA Health Hazard : 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

NFPA Fire Hazard : 0 - Materials that will not burn.

NFPA Reactivity : 1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.



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HMIS III Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given.

Flammability : 0 - Minimal Hazard.

Physical : 1 - Slight Hazard.

Party Responsible for the Preparation of This Document

AFCO
800 Development Avenue
Chambersburg, PA 17201
T: 800-345-1329

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

North America GHS SDS 2015 (U.S., Can., Mex.)