Safety
Data
Sheet

U·E·I Systems
A UEI® GROUP COMPANY

9090 Nieman • Overland Park, KS 66214 • (913) 541-0503 • Toll Free: 800-221-9059 • sales@ueisystems.com • ueisystems.com

Section 1 Chemical Product and Company Identification

Product Identifier Muriatic Acid

Product Number IR-PRO3060

General Use Used to deoxidize photoengraving metal plates

Company Address UEI Systems®, a UEI Group Company
9090 Nieman Road
Overland Park, KS 66214 USA

Phone +1 800 221 9059 or +1 913 541 0503

Emergency Contact Number CHEMTREC – Available 24 hours/day, 7 days/week
Domestic North America: +1 800 424 9300
International: +1 703 527 3887

Section 2 Hazards Identification

GHS Classification

Hazard Class	Hazard Category	Route of Exposure
Corrosive to metals	1	–
Skin Corrosion	1B	–
Serious Eye Damage	1	–
Specific Target Organ Toxicity	3	Respiratory

GHS Labeling

Contains Hydrogen Chloride (7647-01-0) (Hydrochloric Acid)

Danger

Hazard Statements
May be corrosive to metals
Causes severe skin burns and eye damage
Causes serious eye damage
May cause respiratory irritation

Precautionary Statements
Keep only in original container
Avoid breathing dust/fume/gas/mist/vapors/spray
Wash skin thoroughly after handling
Use only outdoors or in a well-ventilated area
Wear protective gloves/protective clothing/eye protection/face protection

Response
If Swallowed Rinse mouth. Do **not** induce vomiting
If On Skin Immediately remove all contaminated clothing. Rinse skin with water/shower.
If Inhaled Remove victim to fresh air and keep at rest in a comfortable position for breathing.
Immediately call a **Poison Center** or doctor/physician.
If In Eyes: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a **Poison Center** or doctor/ physician.
Wash contaminated clothing and wash before reuse.
Absorb spillage to prevent material damage.

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Section 2 Hazards Identification, continued

Storage Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Store in corrosive resistant stainless steel container with a resistant inner liner.

Disposal Dispose of contents/container to an approved waste disposal plant.

Section 3 Hazardous Ingredients / Identity Information

Hazardous Components	CAS No.	%
Hydrogen Chloride (Hydrochloric Acid)	7647-01-0	20

Section 4 First Aid Measures

In all cases, call a physician immediately.

Inhalation If breathed in, move person into fresh air. If not breathing, give artificial respiration.
If breathing is difficult, give oxygen. Consult a physician.

Skin Contact Immediately take off contaminated clothing and shoes.
Wash off with soap and plenty of water. Consult a physician.

Eye Contact Immediately flush eyes with large amounts of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

Ingestion Do **not** induce vomiting. Never give anything by mouth to an unconscious person.
Rinse mouth with water. Consult a physician.

Acute and Delayed Symptoms The most important know symptoms and effects are described in Section 2 and/or Section 11.

Section 5 Firefighting Measures

Extinguishing Media Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide

Flammable/Combustible Properties Hydrogen chloride gas

Firefighting Equipment/Instructions Wear self-contained breathing apparatus for firefighting, if necessary

Section 6 Accidental Release Measures

Personal Precautions Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas.
Evacuate personnel to safe areas. Avoid breathing dust. For personal protection, see Section 8.

Environmental Precautions Do not let product enter drains.

Methods for Cleaning Up Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

Section 7 Handling and Storage

Handling Precautions Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

Storage Requirements Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Storage class (TRGS 510): Non-combustible, corrosive hazardous materials.

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Section 8 Component Exposure Limits

Control Parameters

Hazardous Components	CAS No.	%	OSHA (PEL/TWA)	ACGIH TLV
Hydrogen Chloride (Hydrochloric Acid)	7647-01-0	20	5 ppm (ceiling)	2 ppm (ceiling)

Appropriate Engineering Controls Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Eye/Face Protection Wear face shield and safety glasses

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

Personal Protection Wear complete body 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.

Respiratory Protection Where risk assessment shows air-purifying respirators are appropriate, use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of Environmental Exposure Do not let product enter drains.

Section 9 Physical and Chemical Properties

Appearance/Odor	Liquid/light yellow/Pungent	**Odor Threshold**	No data available
pH	No data available	**Melting Point**	22° F (-30° C)
Boiling Point Range	>212° F° (>100° C)	**Solubility (H_2O)**	Soluble
Specific Gravity	(Water = 1) 1.25 to 1.41	**Relative Density**	1.18 g/mL at 77°F (25° C)
Octanol/H_2O Coefficient	No data available	**Evaporation Rate**	No data available
Decomposition Temperature	No data available	**Oxidizing Properties**	No data available
Auto Ignition	No data available	**Lower Flammability Limit**	No data available
Flash Point	Not applicable	**Upper Flammability Limit**	No data available
Vapor Density	No data available	**Vapor Pressure**	226.636 hPa (169.991 mmHg) at 70.0° F (21.1° C)
Explosive Properties	No data available		546.596 hPa (409.981 mmHg) at 99.9° F (37.7° C)
Viscosity	No data available	**Flammability Class**	No data available

Section 10 Chemical Stability and Reactivity

Reactivity No data available

Chemical Stability Stable under recommended storage conditions

Possibility of Hazardous Reactions No data available

Conditions to Avoid No data available

Incompatibility Bases, Amines, Alkali metals, Metals, Permanganates, e.g. Potassium Permanganate, Fluorine, Metal Acetylides, Hexalithium Disilicide

Hazardous Decomposition/ By-Products Other decomposition products – No data available. In the event of fire, see Section 5.

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Section 11 Toxicological Information

Acute Toxicity No data available

Acute Inhalation No data available

Skin Corrosion/Irritation Rabbit: Causes burns

Serious Eye Damage/Eye Irritation Rabbit: Corrosive to eyes

Respiratory/Skin Sensitization No data available

Germ Cell Mutagenicity No data available

Carcinogenicity This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP or EPA classification.

IARC: 3 – Group 3: Not classifiable as to its carcinogenicity to humans.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive Toxicity No data available

Specific Target Organ Toxicity Single Exposure The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

Specific Target Organ Toxicity Repeated Exposure No data available

Aspiration Hazard No data available

Additional Information RTECS: MW4025000
Burning sensation, cough, wheezing, laryngitis, shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes and skin.

Section 12 Ecological Information

Toxicity to Fish

Component	Species	Exposure Time	LC50/EC50/IC50
Hydrochloric Acid (7647-01-0)	*Gambusia affinis* (mosquito fish)	96 hrs	LC50 282 mg/l

Persistence/Degradability No data available

Bioaccumulative Potential No data available

Mobility in Soil No data available

Results of PBT and vPvB Assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other Adverse Effects No data available

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Section 13 Disposal Considerations

Waste Treatment Methods Offer surplus and non-recyclable solutions to a licensed disposal company.

Packaging Disposal Instructions Dispose of as an unused product.

Section 14 Transportation Information

DOT (US)	
UN number	1789
Class	8
Packing group	II
Proper shipping name	Hydrochloric Acid
Reportable Quantity (RQ)	
Poison Inhalation Hazard	No

IMDG	
UN number	1789
Class	8
Packing group	II
EMS-No	F-A, S-B
Proper shipping name	Hydrochloric Acid

IATA	
UN number	1789
Class	8
Packing group	II
Proper shipping name	Hydrochloric Acid

Section 15 Regulatory Information

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:

	Right To Know Components	CAS-No	Revision Date
Massachusetts	Hydrochloric Acid	7647-01-0	1993-04-24
Pennsylvania	Water	7732-18-5	–
	Hydrochloric Acid	7647-01-0	1993-04-24
New Jersey	Water	7732-18-5	–
	Hydrochloric Acid	7647-01-0	1993-04-24

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

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Section 16 Other Information

UEI Systems® provides the information contained herein in good faith. It is believed to be correct. However it is not all-inclusive and should be used only as a guide. Individuals receiving this information must exercise their independent judgement in determining its appropriateness for a particular purpose. UEI Systems shall not be held liable for any damage resulting from handling or from contact with this product. All information appearing herein is based upon data obtained from the manufacturer and/or recognized technical sources.

Abbreviations

PEL Permissible Exposure Limit
TLV Threshold Limit Value

End Notes

1. SARA - Signed into law in 1986, the Superfund Amendments and Reauthorization Act (SARA) is an extension of CERCLA, and is intended to encourage and support local and state emergency planning efforts. SARA provides citizens and local governments with information about potential chemical hazards, and calls for facilities that store hazardous materials to provide officials and citizens with data on the type and amount on hand at specific locations. This field states whether a material is listed or not listed in section 372.65 of SARA. EHS - This states if a material is listed or not listed in Appendix B to part 355, the SARA Extremely Hazardous Substances (EHS) section. RQ is the reportable quantity. TPQ is the Threshold Planning Quantity.

2. RCRA - The Resource Conservation and Recovery Act enacted in 1976 and subsequently amended, controls solid-waste disposal and encourages recycling. This states whether a material is listed or not listed under this regulation. If listed the Hazardous Waste Number and waste characterization assigned by RCRA is also provided.

3. CERCLA - Enacted in 1980 and amended thereafter, the Comprehensive Environmental Response, Compensation, and Liability Act provides for identification and cleanup of hazardous materials released on land, into the air, waterways, and groundwater. It covers areas affected by newly released materials and older leaking or abandoned dump sites. This states whether a material is listed or not listed in CERCLA Table 302.4. If listed the section(s) that it is listed under and the Reportable Quantity (RQ) are also provided.

4. TSCA - The Toxic Substances Control Act controls the exposure to and use of raw industrial chemicals not subject to other laws. This states whether the chemical is listed or not listed under this regulation.

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