

# Material Safety Data Sheet

## ACID MAGIC™ Muriatic Acid Replacement Product Code: USA

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CERTOL International, LLC urges each customer or recipient of this MSDS to study it carefully to become aware of and understand the hazards associated with the product. The reader should consider consulting reference works or individuals who are experts in ventilation toxicology, and fire prevention, as necessary or appropriate, to use and understand the data in this MSDS.

To promote safe handling, each customer or recipient should: (1) notify its employees, agents, contractors, and others whom it knows or believes will use this material of the information regarding hazards or safety: (2) furnish this information to each of its customers for the product: and (3) request its customers to notify their employees, customers, and other users of the product of this information.

### Emergency and First Aid Procedures

#### SWALLOWING:

Do NOT induce vomiting. If ingested, drink large amounts of milk, follow with milk of magnesia, beaten eggs, or vegetable oil.

#### SKIN CONTACT:

Wash skin with mild soap and water.

#### INHALATION:

Remove to fresh air and administer oxygen if breathing is difficult.

#### EYE CONTACT:

Flush eyes with water for 15 minutes. Seek medical attention if irritation continues.

### 1 IDENTIFICATION

**PRODUCT NAME:** ACID MAGIC™

**CHEMICAL NAME:** Buffered Hydrochloric Acid

**SYNONYMS:** Muriatic Acid, Hydrogen chloride, aqueous

### 2 HAZARDOUS COMPONENTS

PRINCIPAL HAZARDOUS COMPONENTS	CAS #
Hydrochloric Acid	7647-01-0

### 3 PHYSICAL DATA

**APPEARANCE:** Clear to slightly yellow

**ODOR:** Slight pungent

**SOLUBILITY IN WATER:** Complete

**BOILING POINT:** over 212°F

**FREEZING POINT:** Below 0°F

**VAPOR DENSITY:** (Air=1) 3 max

**VAPOR PRESSURE:** 50-60 @ 68°F

**EVAPORATION RATE:** 1

**SPECIFIC GRAVITY:** 1.10

**pH:** less than 0

### 4 FIRE AND EXPLOSION HAZARD

**FLASH POINT:** None

**FLAMMABLE LIMITS IN AIR:** N/A

#### SPECIAL FIRE FIGHTING PROCEDURES:

Hydrogen chloride gas is released when acid is heated.

Use self-contained breathing apparatus approved by NIOSH.

#### UNUSUAL FIRE AND EXPLOSION HAZARDS:

Hydrochloric acid reacts with steel and many common metals to produce hydrogen gas which is flammable and a fire explosion hazard.

### 5 HEALTH HAZARD DATA

COMPONENT	OSHA/ PEL	ACGIH/ TLV	OTHERS (optional)
Hydrochloric Acid	5ppm	None	None

#### NOTE:

Due to the buffering solution in ACID MAGIC, fumes are reduced as much as 90% when compared to conventional 35% Hydrochloric Acid.

ACID MAGIC does not contain any extremely hazardous substances listed in 40 CFR Section 302 of Title III.

#### EFFECT OF SINGLE OVEREXPOSURE:

##### SWALLOWING:

May be fatal if large amounts are ingested. May cause severe burns to mouth, throat, and gastrointestinal tract.

##### SKIN ABSORPTION:

Overexposure can cause irritation and burning.

##### INHALATION:

Overexposure will irritate or burn respiratory tract.

##### EYE CONTACT:

Corrosive, may cause redness, pain, burns, and irreversible damage to eye.

##### EFFECTS OF REPEATED OVEREXPOSURE:

Severe burns to skin, eyes, and respiratory tract.

##### MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

May cause burns to skin, eye damage, respiratory problems.

##### OTHER EFFECTS OF OVEREXPOSURE:

None known

##### CARCINOGENICITY:

NTR: No IARC: No OSHA: No

## 6 REACTIVITY DATA

STABILITY: Stable

CONDITIONS TO AVOID:

HCl gas is slowly released from unconfined solution.

INCOMPATIBILITY (MATERIALS TO AVOID): Most metals, alkalis, strong oxidants, acetic anhydrides, oleum, amines, and vinyl acetate.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS:

HCl gas evolved from heating; hydrogen gas evolved by reaction to metals.

HAZARDOUS POLYMERIZATION: Will not occur

## 7 SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED

OR SPILLED: Remove spills immediately by flushing away with lots of water. Carefully neutralize with alkalis such as soda ash or lime.

Reportable quantity (RQ) is 8,000 lbs.

WASTE DISPOSAL METHOD:

Dilute with water and carefully neutralize with alkali and flush to sewer if permitted by disposal regulations. Disposal by a disposal contractor may otherwise be needed. Un-neutralized Hydrochloric Acid is subject to federal RCRA regulations.

Consult appropriate regulatory officials for additional information regarding disposal.

## 8 HANDLING AND STORAGE

Store in dry, well ventilated area away from heat and out of sun. So not store near alkalis, highly flammable or oxidizing substances (oil, nitric acid, etc.) Store in closed, properly labeled, rubber-lined steel, acid resistant plastic, or glass containers. Product must not contact hydrogen sulfide gas, chlorine bleach, or cyanide. Keep out of reach of children.

## 9 SPECIAL PROTECTIVE INFORMATION

RESPIRATORY PROTECTION:

For concentrates above the PEL ceiling, use an acid canister gas mask up to 2%. For higher concentrations use air-line mask or self-contained breathing apparatus. Note: the PEL ceiling will be harder to reach because of the reduced fuming of Acid Magic, compared to conventional Hydrochloric Acid.

VENTILATION:

Local exhaust is necessary to eliminate vapors. Mechanical exhaust is not normally required unless used in confined area and/or individual has sensitive respiratory system.

PROTECTIVE GLOVES:

Recommended: Neoprene or VBR.

EYE PROTECTION:

Use safety goggles and/or face shield.

PROTECTIVE CLOTHING:

Where contact may occur, wear protective clothing or chemical resistant apron.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

An eyewash station should be nearby and ready for use.

## 10 REGULATION INFORMATION

STATUS ON SUBSTANCE LISTS: N/A

FEDERAL EPA:

STATUS RIGHT-TO-KNOW:

Specific ingredients are a trade secret. However, a general description is as follows: Acid Magic, a muriatic acid replacement, is the result of combining a patented product, known as a buffer, with Hydrochloric Acid, thus rendering the acid much safer to the human skin. This product offers the advantages of the use of acids while nearly eliminating the objectionable properties of most acids, including acid burns and toxic fumes. As of June 3, 1992 Acid Magic is approved by the USDA for use in food processing and related industries.

## 11 TRANSPORTATION DATA – Proper Shipping Name

**Quantity: 1 Gal or less per inner package** – Consumer Commodity, ORM-D, UN8000 (requires dangerous goods declaration when offered for air transport)

**Quantity: more than 4 Gals** – Corrosive Liquids, N.O.S.

(contains Hydrochloric Acid), Class 8, UN1760, PGIII

**CHEMICAL WARNING LABELS** Required on containers, tubs, and bottles which are filled from original containers with potentially hazardous substances.

Below is the hazard rating corresponding to the NFPA Rating System.

**4-Extreme**  
**3-High**  
**2-Moderate**  
**1-Slight**  
**0-Insignificant**

### NFPA HAZARD RATING

**HEALTH: 3**

**FLAMMABILITY: 0**

**REACTIVITY: 1**

Below is a sample of **Pro Tector™** Chemical Warning Label available from Universal Chemicals & Supplies, Inc. which reflects chemical information for **ACID MAGIC**. No wall reference is necessary.

**Product Name: ACID MAGIC Hazardous chemicals: Hydrochloric Acid**

<u>ROUTE OF ENTRY</u>	<u>HEALTH HAZARD</u>	<u>FIRE HAZARD</u>
<input checked="" type="checkbox"/> Inhalation	<input type="checkbox"/> Irritant	<input type="checkbox"/> Below 73°F
<input checked="" type="checkbox"/> Ingestion	<input type="checkbox"/> Carcinogen	<input type="checkbox"/> Below 100°F
<input checked="" type="checkbox"/> Skin/eye absorption	<input checked="" type="checkbox"/> Toxic	<input type="checkbox"/> Above 100°F not >200°F
<u>TARGET ORGAN</u>	<input type="checkbox"/> Sensitizer	<input type="checkbox"/> Above 200°F
<u>EFFECTS</u>	<input type="checkbox"/> Normal Material	<input checked="" type="checkbox"/> Will not burn
<input checked="" type="checkbox"/> Respiratory	<u>PHYSICAL HAZARD</u>	<u>REACTIVITY</u>
<input type="checkbox"/> Heart	<input type="checkbox"/> Oxidizer	<input type="checkbox"/> May detonate
<input type="checkbox"/> Kidney	<input checked="" type="checkbox"/> Acid	<input type="checkbox"/> Shock and heat may detonate
<input checked="" type="checkbox"/> Eyes	<input type="checkbox"/> Alkali	<input type="checkbox"/> Violent chemical change
<input checked="" type="checkbox"/> Skin	<input checked="" type="checkbox"/> Corrosive	<input type="checkbox"/> Unstable if heated
<input type="checkbox"/> Prostate	<input type="checkbox"/> Use not water	<input checked="" type="checkbox"/> Stable
<input type="checkbox"/> Blood	<input type="checkbox"/> Radioactive	
<input type="checkbox"/> Liver		
<input type="checkbox"/> CNS		
<input type="checkbox"/> Other		

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