

Muriatic Acid Cleaner

Safety Data Sheet

SECTION 1: Product and company identification

Product name : Muriatic Acid Cleaner
Use of the substance/mixture : Acid
Product code : 0140
Company : Total Solutions
P.O. Box 240014
Milwaukee, WI 53224 - USA
T (414) 354-6417
Emergency number : Chemtec: (800) 424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Met. Corr. 1 H290
Skin Corr. 1B H314
STOT SE 3 H335

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :



GHS05

GHS07

Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

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

Precautionary statements (GHS-US) :

Keep only in original container
Do not breathe mist, spray
Avoid breathing mist, spray
Wash thoroughly after handling
Use only outdoors or in a well-ventilated area
Wear eye protection, protective clothing, protective gloves
If swallowed: rinse mouth. Do NOT induce vomiting
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
If inhaled: Remove person to fresh air and keep comfortable for breathing
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a doctor, a POISON CENTER
Call a doctor, a POISON CENTER if you feel unwell
Specific treatment (see First aid measures on this label)
Wash contaminated clothing before reuse
Absorb spillage to prevent material damage
Store in a well-ventilated place. Keep container tightly closed
Store locked up
Store in corrosive resistant container with a resistant inner liner
Dispose of contents/container to comply with local/regional/national/international regulations.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

Full text of H-phrases: see section 16

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
hydrogen chloride	(CAS No) 7647-01-0	10 - 30	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Corr. 1B, H314 STOT SE 3, H335
UNDECETH-5	(CAS No) 34398-01-1	1.0 - 5.0	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.
- First-aid measures after skin contact : Take off immediately all contaminated clothing and wash it before reuse. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. Immediately call a poison center or doctor/physician.
- First-aid measures after ingestion : Fatal if swallowed. Immediately call a poison center or doctor/physician. Rinse mouth. Do NOT induce vomiting. Drink plenty of water.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : Causes severe skin burns and eye damage.
- Symptoms/injuries after inhalation : Corrosive to the respiratory tract.
- Symptoms/injuries after skin contact : Caustic burns/corrosion of the skin.
- Symptoms/injuries after eye contact : Causes serious eye damage. Corrosion of the eye tissue. Permanent eye damage.
- Symptoms/injuries after ingestion : Fatal if swallowed. Burns to the gastric/intestinal mucosa.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : All extinguishing media allowed.

5.2. Special hazards arising from the substance or mixture

- Reactivity : Thermal decomposition generates : Carbon monoxide. Carbon dioxide. HCl. Chlorine.

5.3. Advice for firefighters

- Firefighting instructions : Exercise caution when fighting any chemical fire. Use water moderately and if possible collect or contain it. Use water spray or fog for cooling exposed containers.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Isolate from fire, if possible, without unnecessary risk.

6.1.1. For non-emergency personnel

- Protective equipment : Gloves. Protective goggles. Face-shield. Protective clothing.
- Emergency procedures : Evacuate unnecessary personnel. Avoid contact with skin, eyes and clothing. Ventilate spillage area.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Stop leak if safe to do so. Stop release. Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Prevent soil and water pollution.

6.3. Methods and material for containment and cleaning up

- For containment : Contain released substance, pump into suitable containers.
- Methods for cleaning up : This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

No additional information available

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Do not spray to create mists. Do not heat to create vapors.
- Precautions for safe handling : Comply with the legal requirements. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not eat, drink or smoke when using this product. Do not get in eyes, on skin, or on clothing.
- Hygiene measures : Wash thoroughly after handling. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Comply with applicable regulations.
- Storage conditions : Keep container closed when not in use. Store in original container.
- Incompatible products : alkaline substances. metals and metal salts.
- Incompatible materials : chlorine-based bleaching agents. ammonia.
- Storage area : Keep only in the original container. Store in a dry area. Store in a cool area.
- Special rules on packaging : meet the legal requirements.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

hydrogen chloride (7647-01-0)		
ACGIH	ACGIH Ceiling (ppm)	2 ppm

8.2. Exposure controls

- Personal protective equipment : Gloves. Safety glasses. Protective clothing. Use appropriate personal protective equipment when risk assessment indicates this is necessary.



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : Clear, green liquid.
- Odor : acidic
- Odor threshold : No data available
- pH : 1
- Melting point : No data available
- Freezing point : No data available
- Boiling point : No data available
- Flash point : > 200 °F Closed Cup
- Relative evaporation rate (butyl acetate=1) : No data available
- Flammability (solid, gas) : No data available
- Explosion limits : No data available
- Explosive properties : No data available
- Oxidizing properties : No data available
- Vapor pressure : No data available
- Relative density : No data available
- Relative vapor density at 20 °C : No data available
- Specific gravity / density : 1.1 g/ml
- Solubility : Soluble in water.
- Log Pow : No data available
- Log Kow : No data available
- Auto-ignition temperature : No data available
- Decomposition temperature : No data available
- Viscosity : No data available
- Viscosity, kinematic : No data available

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Viscosity, dynamic : No data available
VOC content : < 0.5 %

SECTION 10: Stability and reactivity

10.1. Reactivity

Thermal decomposition generates : Carbon monoxide. Carbon dioxide. HCl. Chlorine.

10.2. Chemical stability

No additional information available

10.3. Possibility of hazardous reactions

Refer to section 10.1 on Reactivity.

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

May be corrosive to metals. Metals.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

UNDECETH-5 (34398-01-1)	
LD50 oral rat	> 1400 mg/kg

hydrogen chloride (7647-01-0)	
LD50 oral rat	700 mg/kg
LC50 inhalation rat (mg/l)	1.68 mg/l

Skin corrosion/irritation : Causes severe skin burns and eye damage.
pH: 1

Serious eye damage/irritation : Not classified
pH: 1

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

hydrogen chloride (7647-01-0)	
IARC group	3 - Not Classifiable

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : May cause respiratory irritation.

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Symptoms/injuries after inhalation : Corrosive to the respiratory tract.

Symptoms/injuries after skin contact : Caustic burns/corrosion of the skin.

Symptoms/injuries after eye contact : Causes serious eye damage. Corrosion of the eye tissue. Permanent eye damage.

Symptoms/injuries after ingestion : Fatal if swallowed. Burns to the gastric/intestinal mucosa.

SECTION 12: Ecological information

12.1. Toxicity

UNDECETH-5 (34398-01-1)	
LC50 fish 1	< 10 mg/l
EC50 Daphnia 1	< 10 mg/l
ErC50 (algae)	< 10 mg/l

12.2. Persistence and degradability

hydrogen chloride (7647-01-0)	
Persistence and degradability	No (test)data on mobility of the components available.

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12.3. Bioaccumulative potential

hydrogen chloride (7647-01-0)

Bioaccumulative potential : No test data of component(s) available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

Transport document description : UN1789 Hydrochloric acid, 8, II
UN-No.(DOT) : UN1789
Proper Shipping Name (DOT) : Hydrochloric acid
Transport hazard class(es) (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136
Hazard labels (DOT) : 8 - Corrosive



Packing group (DOT) : II - Medium Danger
DOT Packaging Non Bulk (49 CFR 173.xxx) : 202
DOT Packaging Bulk (49 CFR 173.xxx) : 242
DOT Special Provisions (49 CFR 172.102) : A3,A6,B3,B15,IB2,N41,T8,TP2,TP12
DOT Packaging Exceptions (49 CFR 173.xxx) : 154
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 1 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 30 L
DOT Vessel Stowage Location : C

Additional information

Other information : No supplementary information available.

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

hydrogen chloride	CAS No 7647-01-0	10 - 30
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UNDECETH-5 (34398-01-1)

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
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hydrogen chloride (7647-01-0)

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hydrogen chloride (7647-01-0)	
Not listed on SARA Section 313 (Specific toxic chemical listings)	
Listed on SARA Section 313 (Specific toxic chemical listings)	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	500 lb

California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer and/or reproductive toxicity

SECTION 16: Other information

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

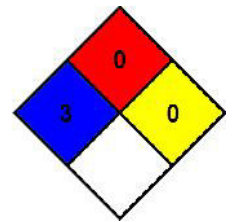
Full text of H-phrases:

Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
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
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H332	Harmful 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 : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



Prepared by: Technical Department

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. No warranty is expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. Our company assumes no responsibility for personal injury or property damage to the vendee, users or third parties caused by the material. Such vendees or users assume all risks associated with the use of this material.