**SECTION 1: Product and company identification**

<table>
<thead>
<tr>
<th>Product name</th>
<th>Muriatic Acid Cleaner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of the substance/mixture</td>
<td>Acid</td>
</tr>
<tr>
<td>Product code</td>
<td>0140</td>
</tr>
<tr>
<td>Company</td>
<td>Total Solutions</td>
</tr>
<tr>
<td>Address</td>
<td>P.O. Box 240014 Milwaukee, WI 53224 - USA</td>
</tr>
<tr>
<td>Telephone</td>
<td>(414) 354-6417</td>
</tr>
<tr>
<td>Emergency number</td>
<td>Chemtrec: (800) 424-9300</td>
</tr>
</tbody>
</table>

**SECTION 2: Hazards identification**

2.1. Classification of the substance or mixture

<table>
<thead>
<tr>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Met. Corr. 1 H290</td>
</tr>
<tr>
<td>Skin Corr. 1B H314</td>
</tr>
<tr>
<td>STOT SE 3 H335</td>
</tr>
</tbody>
</table>

2.2. Label elements

<table>
<thead>
<tr>
<th>GHS-US labeling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard pictograms (GHS-US)</td>
</tr>
<tr>
<td><img src="image" alt="GHS05" /> <img src="image" alt="GHS07" /></td>
</tr>
<tr>
<td>Signal word (GHS-US)</td>
</tr>
<tr>
<td>Hazard statements (GHS-US)</td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
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<tr>
<td>Precautionary statements (GHS-US)</td>
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</tbody>
</table>

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. Substances

Not applicable

Full text of H-phrases: see section 16

3.2. Mixtures
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/effects: Causes severe skin burns and eye damage. May cause respiratory irritation.

Symptoms/effects after inhalation: May cause respiratory irritation.

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

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

Symptoms/effects after ingestion: 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


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


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 product, 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
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
Linear Alcohol Ethoxylate (34398-01-1)
Not applicable
hydrogen chloride (7647-01-0)
<table>
<thead>
<tr>
<th>ACGIH</th>
<th>ACGIH Ceiling (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 ppm (Hydrogen chloride; USA; Momentary value; TLV - Adopted Value)</td>
</tr>
</tbody>
</table>

8.2. Exposure controls
Appropriate engineering controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
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
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.

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

Linear Alcohol Ethoxylate (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/effects after inhalation: May cause respiratory irritation.
Symptoms/effects after skin contact: Caustic burns/corrosion of the skin.
Symptoms/effects after eye contact: Causes serious eye damage. Corrosion of the eye tissue. Permanent eye damage.
Symptoms/effects after ingestion: Burns to the gastric/intestinal mucosa.
Likely routes of exposure: Skin and eye contact

SECTION 12: Ecological information

12.1. Toxicity

Linear Alcohol Ethoxylate (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.

**12.3. Bioaccumulative potential**

<table>
<thead>
<tr>
<th>Component</th>
<th>Bioaccumulative potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>hydrogen chloride (7647-01-0)</td>
<td>No test data of component(s) available.</td>
</tr>
</tbody>
</table>

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**
Product/Packaging disposal recommendations:
Dispose in a safe manner in accordance with local/national regulations.

**SECTION 14: Transport information**

**Department of Transportation (DOT)**
In accordance with DOT: Not regulated for transport.

- **Transport document description**: UN1789 Hydrochloric acid (solution), 8, II
- **UN-No.(DOT)**: UN1789
- **Proper Shipping Name (DOT)**: Hydrochloric acid
- **Class (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.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>hydrogen chloride</td>
<td>7647-01-0</td>
<td>10 - 30%</td>
</tr>
</tbody>
</table>

**Linear Alcohol Ethoxylate (34398-01-1)**

**SARA Section 311/312 Hazard Classes**: Immediate (acute) health hazard

**hydrogen chloride (7647-01-0)**
Muriatic Acid Cleaner
Safety Data Sheet

hydrogen chloride (7647-01-0)

Not subject to reporting requirements of the United States SARA Section 313
Subject to reporting requirements of United States SARA Section 313

CERCLA RQ

5000 lb

SARA Section 302 Threshold Planning Quantity (TPQ)

500 lb

⚠️ WARNING
This product can expose you to 1,4-dioxane, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

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:

<table>
<thead>
<tr>
<th>H290</th>
<th>May be corrosive to metals</th>
</tr>
</thead>
<tbody>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage</td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
</tbody>
</table>

NFPA health hazard: 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

NFPA fire hazard: 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity: 0 - Material that in themselves are normally stable, even under fire conditions.

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.