Section I - Product Identification
An aqueous solution of hydrochloric acid.

Section II - Hazards Identification
Danger: Causes severe skin burns and eye damage. Wash thoroughly after handling. Wear protective clothing, eye and face protection. If swallowed, rinse mouth with water but do not induce vomiting. Immediately contact a poison control center. Remove contaminated clothing and wash before reuse. Rinse skin with water.

Safety Ratings
- Slight
- None
- None
- Slight

Recommended safety equipment: safety goggles, lab coat and proper gloves
Storage: General storage

NFPA Ratings

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Reactivity</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Potential Health Effects
The toxicology of this compound have not been completely examined. It is presumed that the toxicity of this item is similar to other weak acids.

Inhalation: May be irritating
Ingestion: While the toxicity of this compound is low, large doses may cause nausea, vomiting, diarrhea, etc.
Skin contact: Not normally a problem
Eye contact: May be irritating
Chronic Exposure: Unknown
Aggravation of preexisting conditions: Unknown

Section III - Composition/Information on Components

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS#</th>
<th>OSHA Pel</th>
<th>ACGIH TLV</th>
<th>Other Limits</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>hydrochloric acid</td>
<td>7647-01-0</td>
<td>5 ppm (Ceiling)</td>
<td>2 ppm (Ceiling)</td>
<td>8% w/v</td>
<td></td>
</tr>
</tbody>
</table>

Section IV - First Aid Measures
Inhalation: Remove from source of exposure and get medical attention for any breathing difficulty.
Ingestion: If the victim is conscious, induce vomiting. Never give anything by mouth to an unconscious person.
Skin Contact: Wash affected area with soap and water. Get medical advice if irritation develops.
Eye Contact: Rinse thoroughly with running water. Get medical advice if irritation develops.
Section V - Fire Fighting Measures

*Fire*: Not normally a fire Hazard,

*Explosion*: Not Normally an explosion hazards.

*Fire Extinguishing Media*: Any means suitable for surrounding fire.

*Special information*: Pyrolysis will release corrosive oxides.

Section VI - Accidental Release Measures

Absorb with a suitable absorbent (such as paper towels) and store in a suitable container for disposal.

Section VII - Handling and Storage

Store in a closed container, protected from freezing.

Section VIII - Exposure Control/Personal Protection

*Airborne Exposure Limits*: See section III

*Ventilation System*: Usually not required. When required, Refer to the ACGIH document, “Industrial Ventilation, a Manual of Recommended Practices” for details about ventilation.

*Personal Respirator*: Usually not required. In case of emergency, or when exposure levels are unknown, use a positive pressure, full face piece, air supplied respirator.

*Skin protection*: Protective gloves are not required but recommended as part of good laboratory practice.

*Eye Protection*: Laboratory safety goggles or similar products are not required but recommended as part of good laboratory practice.

Section IX - Physical and Chemical Properties

*Boiling Point*: 100°C

*Density*: 1.00 g/ml

*Vapor pressure (mm Hg)*: 18 @ 20°C

*Evaporation Rate (water = 1)*: 1

*Vapor Density (air = 1)*: 0.6

*Solubility*: Infinitely miscible with water

*Appearance and Odor*: A clear colorless liquid with the odor of hydrochloric acid.

Section X - Stability and Reactivity

*Stability*: Freezes at low temperature.

*Hazardous Decomposition Products*: Nothing unusual.

*Hazardous polymerization*: Will not occur.

*Incompatibilities*: Nothing unusual.

*Conditions to avoid*: Excessive cold/heat and light.

Section XI - Toxicological Information

None relating to normal exposure.

<table>
<thead>
<tr>
<th>Cancer lists</th>
<th>Known Carcinogenicity?</th>
<th>NTP?</th>
<th>Anticipated?</th>
<th>IARC Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingredient</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrochloric Acid</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>3</td>
</tr>
</tbody>
</table>

Section XII - Ecological Information

*Environmental Fate*: Biodegradable

*Environmental Toxicity*: None
Section XIII - Disposal Considerations

Acids may usually be diluted so that the pH of the effluent is higher than 4 and flushed down drain. Local governments can restrict the amounts of acids that may be flushed down the drain. Dispose of contents and container in accordance with all government regulations. Dilute acids are corrosive to metal plumbing.

Section XIV - Transportation Information

Not regulated.

Section XV - Regulatory Information

### Chemical Inventory Status

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>TSCA</th>
<th>EC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric Acid</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### Federal, State and International Regulations

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>SARA 302</th>
<th>SARA 313</th>
<th>RCRA</th>
<th>TSCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric Acid</td>
<td>RQ 5000</td>
<td>TPQ 500</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

SARA 311/312: Acute: Yes, Chronic: Yes, Fire: No

Section XVI - Other Information

This information is believed to be correct but is not warranted as such, nor does it purport to be all inclusive.

Revision Date: May 1, 2015