Hydrochloric Acid 5%, Aqueous for Acid Cleaning Glassware – Technical Memo

**SOLUTION:**

<table>
<thead>
<tr>
<th>Part 12086A</th>
<th>Part 12086B</th>
<th>Part 12086C</th>
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</thead>
<tbody>
<tr>
<td>Hydrochloric Acid 5%, Aqueous</td>
<td>1 Liter</td>
<td>1 Gallon</td>
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</tbody>
</table>

For storage requirements and expiration date refer to individual bottle label.

**APPLICATION:**

Newcomer Supply Hydrochloric Acid 5%, Aqueous for Acid Cleaning Glassware is instrumental in ensuring that laboratory glassware/plasticware is acid/chemically cleaned prior to solution preparation and/or performing any silver, iron or calcium staining procedures.

**METHOD:**

**Solutions:** All solutions are manufactured by Newcomer Supply, Inc.

**PROCEDURE:**

1. Before proceeding with acid cleaning, all glassware/plasticware should be cleaned with a laboratory grade glassware detergent, washed and rinsed according to your accepted laboratory protocol.
   a. Most new glass is slightly alkaline and should be washed upon receipt in the laboratory and prior to initial use.
2. Use appropriate safety precautions and pour sufficient Hydrochloric Acid 5%, Aqueous into glassware; gently swirl to ensure that all surfaces/sides/edges have been thoroughly coated with the solution.
3. Repeat this process for all glassware/plasticware to be used in a procedure that requires acid cleaning, including; bottles, beakers, flasks, Coplin jars, graduated cylinders, stir rods, pipettes, thermometers and any lids for bottles or jars.
   a. See Procedure Note #1.
4. Rinse all glassware/plasticware with a minimum of four changes of distilled water, ensuring that all surfaces/sides/edges have been rinsed well and no residual Hydrochloric Acid 5%, Aqueous remains.
   a. It is essential that the final rinses are distilled water or chlorine-free water. Tap water rinses will leave surface contaminates on the glassware/plasticware resulting in staining issues.
5. Dry glassware in a designated area for acid/chemically cleaned glassware.

**PROCEDURE NOTES:**

1. Fresh Hydrochloric Acid 5%, Aqueous should be used with every batch of glassware/plasticware cleaned. The solution can be reused on multiple pieces of glassware/plasticware that are acid/chemically cleaned at the same time.
2. Neutralize dilute Hydrochloric Acid 5%, Aqueous with 1 M magnesium hydroxide/oxide, sodium carbonate or sodium bicarbonate and/or dispose of according to local and state environmental regulations.

**REFERENCES:**

4. Modifications developed by Newcomer Supply Laboratory.