## Characteristics of Selected Disinfectants

<table>
<thead>
<tr>
<th>Disinfectant Category</th>
<th>Alcohols</th>
<th>Aldehydes</th>
<th>Biguanides</th>
<th>Halogens: Hypochlorites</th>
<th>Halogens: Iodine Compounds</th>
<th>Oxidizing Agents</th>
<th>Phenols</th>
<th>Quaternary Ammonium Compounds (QAC)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sample Trade Names</strong></td>
<td>Ethyl alcohol</td>
<td>Isopropyl alcohol</td>
<td>Formaldehyde</td>
<td>Chlorhexidine</td>
<td>Nolvasan</td>
<td>Bleach</td>
<td>Betadine</td>
<td>Provodone&lt;sup&gt;®&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Mechanism of Action</strong></td>
<td>• Precipitates proteins</td>
<td>• Denatures proteins</td>
<td>• Denatures proteins</td>
<td>• Denatures proteins</td>
<td>• Denature proteins and lipids</td>
<td>• Alters cell wall permeability</td>
<td>• Denatures proteins</td>
<td>• Binds phospholipids of cell membrane</td>
</tr>
<tr>
<td><strong>Advantages</strong></td>
<td>• Fast acting</td>
<td>• Broad spectrum</td>
<td>• Broad spectrum</td>
<td>• Stable in storage</td>
<td>• Good efficacy with organic material</td>
<td>• Stable in storage</td>
<td>• Broad spectrum</td>
<td>• Stable in storage</td>
</tr>
<tr>
<td><strong>Disadvantages</strong></td>
<td>• Rapid evaporation</td>
<td>• Carcinogenic</td>
<td>• Only functions in limited pH range (5-7)</td>
<td>• Inactivated by sunlight, some metals</td>
<td>• Stains clothes or treated surfaces</td>
<td>• Damaging to some metals</td>
<td>• Toxic to animals</td>
<td>• NOT effective for FMD or Johne's</td>
</tr>
<tr>
<td><strong>Precautions</strong></td>
<td>Flammable</td>
<td>Carcinogenic</td>
<td>Never mix with acids; will release toxic chlorine gas</td>
<td>Toxic to animals, especially cats</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Vegetative Bacteria
- Effective

### Mycobacteria
- Effective

### Enveloped Viruses
- Effective

### Non-enveloped Viruses
- Variable

### Spores
- Not Effective

### Fungi
- Effective

### Efficacy with Organic Matter
- Reduced

### Efficacy with Hard Water
- ?

### Efficacy with Soap/Detergents
- Reduced

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**Disclaimer:** Use of trade names does not in any way signify endorsement of a particular product.

For additional product names, please consult the most recent Compendium of Veterinary Products.