Table 1.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Practical Requirements** | | | | | | | | | | **Inactivates** | | | |
|  | | | | | **Contact Time (min.)** | | |  | | | | | |
| **Disinfectants**  **Type Category** | | | **Use Dilution** | | Lipo virus | | Broad Spec. | Temp. ( o C) | Rel. Humid (%) | Veg. Bacteria | Lipo viruses | Non-lipid Virus | Bact. Spores |
| **Liq.** | Quat Ammon. | | 0.1-2.0% | | 10 | | NE A |  |  | **+** | **+** |  |  |
| Phenolic | | 1.0-5.0% | | 10 | | NE |  |  | **+** | **+** | B |  |
| Chlorine | | 500 ppmc | | 10 | | 30 |  |  | **+** | **+** | **+** | **+** |
| Iodophor | | 25-1600 ppmc | | 10 | | 30 |  |  | **+** | **+** | **+** | **+** |
| Ethanol | | 70 – 85% | | 10 | | NE |  |  | **+** | **+** | B |  |
| Isopropanol | | 70 – 85% | | 10 | | NE |  |  | **+** | **+** | B |  |
| Formaldehyde | | 0.2-8.0% | | 10 | | 30 |  |  | **+** | **+** | **+** | **+** |
| Glutaraldehyde | | 2% | | 10 | | 30 |  |  | **+** | **+** | **+** | **+** |
|  | | | | | | | | | | | | |
| **Gas** | Ethylene Oxide | 8-23 g/f**t3** | | 60 | | 60 | | 37 | 30 | **+** | **+** | **+** | **+** |
| Para-formaldehyde | 0.3 g/ft**3** | | 60 | | 60 | | >23 | >60 | **+** | **+** | **+** | **+** |
| A NE-Not Effective  B Variable results dependent on virus  C Available Halogen | | | | | | | | | | | | | |

Table 2

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Disinfectants**  **Type**   **Category** | | | **Important Characteristics** | | | | | | | | | | | | |
| Shelf Life(>1wk.A ) | | Corrosive | Flammable | Explosion Potential | Residue | Inactivated by Organic Matter | Compatible for OpticsB | Compatible for Electronics | Skin Irritant | Respiratory Irritant | Eye Irritant | Toxicc |
| **Liquid** | Quat Ammon | | + | |  |  |  |  | + | + |  | + |  | + | + |
|  | Phenolic | | + | | + |  |  | + |  |  |  | + |  | + | + |
| Chlorine | |  | | + |  |  | + | + |  |  | + | + | + | + |
| Iodophor | | + | | + |  |  | + | + |  |  | + |  | + | + |
| Ethanol | | + | |  | + |  |  |  |  |  |  |  | + | + |
| Isopropanol | | + | |  | + |  |  |  |  |  |  |  | + | + |
| Formaldehyde | | + | |  |  |  | + |  |  |  | + |  | + | + |
| Glutaraldehyde | | + | |  |  |  | + |  | + |  | + |  | + | + |
|  | | | | | | | | | | | | | | | |
| **Gas** | | Ethylene Oxide | N/A |  | | +D | + D |  |  | + | + | + | + | + | + |
|  | | Para-formaldehyde | N/A |  | | +E | + E |  |  | + | + | + | + | + | + |
| AProtected from light and air  BUsually compatible, but consider interferences from residues and effects on associated materials such as mounting adhesives  CSkin or mouth or both-refer to manufacturer’s literature and /or Merck Index  DNeither flammable nor explosive in 90%CO2 or fluorinated hydrocarbon, the usual form  EAt concentrations of 7 to 73% by volume in air, solid-exposure to open flame | | | | | | | | | | | | | | | |

**TABLE 3**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Potential Application** | | | | | | | | | | | | |
| **Disinfectants**  **Type Category** | | Work  Sur-  Faces | Dirty Glass-  ware | Large Area Decon. | Air Handling Systems | Portable  Equip. Surface Decon | Portable  Equip. Penetrating Decon | Fixed  Equip. Surface Decon | Fixed Equip. Penetrating Decon. | Optical and Electronic  Instruments | Liquids for Discard | Books,  Papers |
| **Liquid** |  |
| Quat. Ammon. | + | + |  |  | + |  | + |  |  |  |  |
| Phenolic | + | + |  |  | + |  | + |  |  |  |  |
| Chlorine | + | + |  |  | + |  | + |  |  | + |  |
| Iodophore | + | + |  |  | + |  | + |  |  |  |  |
| Ethanol | + | + |  |  | + |  | + |  |  |  |  |
| Isopropanol | + | + |  |  | + |  | + |  |  |  |  |
| Formaldehyde | + | + |  |  | + |  | + |  |  |  |  |
| Glutaraldehyde | + | + |  |  | + |  | + |  |  |  |  |
|  | | | | | | | | | | | | |
| **Gas** | Ethylene Oxide |  |  |  |  |  | + |  |  | + |  | + |
| Paraformaldehyde |  |  | + | + |  | + |  | + | + |  |  |
| + Very Positive response; + / ─ Less Positive Response; No entry denotes negative response or not applicable | | | | | | | | | | | | |

Table 4

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Disinfectants** | | | | Veg. Bacteria | Lipo Viruses | *M. tuberculosis* | Hydrophyllic Viruses | Spores | **Examples of Proprietary Disinfectants** |
| **Liquid** | | Quat. Ammon. | | + | + |  |  |  | A-33, CDQ, End-Bac, Hi-Tor, Mikro-Quat |
| Phenolic | | + | + | + | + / ─ |  | Hil-Phene, Matar, Mikro-Bac, O-syl |
| Chlorine | | + | + | + | + | + / ─ | Chloramine T, Clorox, Purex |
| Iodophor | | + | + | + | + / ─ |  | Hy-Sine, Ioprep, Mikroklene, Wescodyne |
| Ethanol | | + | + | + | + / ─ |  | Fisher, J.T.Baker, Mallinkrodt |
| Isopropanol | | + | + | + | + / ─ |  | Fisher, J.T.Baker, Mallinkrodt, CVS, |
| Formaldehyde | | + | + | + | + | + / ─ | Sterac |
| Glutaraldehyde | | + | + | + | + | + | Cidex |
|  | | | | | | | | | |
| **Gas** | Ethylene Oxide | | + | | + | + | + | + | Carboxide, Cryoxide, Steroxide |
| Para-formaldehyde | | + | | + | + | + | + | Fisher, J.T.Baker, Mallinkrodt |
| + Very Positive response; + / ─ Less Positive Response; No entry denotes negative response or not applicable  These are a representative few of all the products available for disinfection. The listing or omission of a product neither rejects nor endorses use of the product. | | | | | | | | | |