

Disinfectants				
	Alcohols	Chlorinating Agents	Oxidizing Agents	Quaternary Ammonium Compounds
Example	Isopropyl Alcohol	Bleach, Hypochlorite, Chlorine Dioxide	Hydrogen Peroxide, Accelerated Hydrogen Peroxide, Peracetic Acid (Peroxyacetic Acid)	Diethyl Ammonium Chloride
Concentration Used	60-95%	100-5000 ppm	0.5% Hydrogen Peroxide, 1-15% Peracetic Acid	0.4-1.6%
Contact Time	BE SURE TO CHECK INDIVIDUAL LABELS OF PRODUCT FOR CONTACT TIMES			
Mechanism of Action	Precipitates proteins, denatures lipids	Denatures proteins	Denatures proteins and lipids	Denatures proteins, binds phospholipid of cell membrane
Advantages	Fast acting, no residue, non-staining	Broad spectrum, short contact time, fast acting, inexpensive	Broad spectrum, fast acting, peroxide breaks down to water and oxygen	Stable in storage, non-irritating to skin, effective at high temperatures and high pH (9-10)
Disadvantages	Rapid evaporation (may not have long enough contact), flammable, hardens rubber, degrades gloves	Inactivated by sunlight, requires frequent application, corrodes metals, mucous membrane and tissue irritant, dilution reduces shelf life	Damaging to some metals, mucous membrane and tissue irritation, limited to surface activity due to poor penetration	Narrow microbicidal activity, removes floor polishes
Vegetative Bacteria	Yes	Yes	Yes	Yes - Gram Positive, Limited - Gram Negative
Mycobacteria	Yes	Yes	Yes	Variable
Enveloped Viruses	Yes	Yes	Yes	Variable
Spores	No	Variable	Variable	No
Fungi	Effective	Effective	Variable	Variable
Efficacy with Organic Matter	Reduced	Rapidly reduced	Variable	No
Corrosiveness	Rubber, gloves	Corrodes Metals	Corrodes Metals	Removes Floor Polishes

Adapted from Appendix II USP Chapter <797> (2018 Compounding Compendium) and The CDC Handbook: A Guide to Cleaning and Disinfecting (by Tim Sandle) Chart below from Jim Polarine

