



# Disinfectant Comparison Chart

DISINFECTANT	HOUSEHOLD NAME	ADVANTAGES	DISADVANTAGES	CONTACT TIME
Chlorine Dioxide	Oxiguard, greenO2MEDx	Safe around humans/animals, superior biocide, sanitizer, fungicide, sporocide, disinfectant. Effective against C-Diff, STAPH, MRSA. Excellent deodorizer. No bacterial resistance, highly effective at low concentrations, broad pH range, no harmful fumes at low concentrations, attacks protein/DNA does not allow cell replication. Will not damage plastic or rubber.	Moderately priced. High concentrations pose respiratory hazards	1-5 min.
Chlorhexidine	Virosan, Chlorhex, Hibistat	Non-Toxic, No harsh odors, used on wounds or as mouthwash. Effective against STAPH and many gram-negative organisms.	Long contact times Poor kill rates against MOST viruses Hard water makes it less effective	15 min.
Alcohol	Alcohol	Cost effective, very effective against gram-positive and negative bacteria, denatures proteins, can be used on skin and instruments for disinfection.	Long contact times, will not penetrate organic materials, irritates tissue, not effective against some viruses and spores, evaporates quickly.	15-20 min.
Aldehydes	Cidex, Lysofume, Sporocidin	Non corrosive to metals, will not damage plastic or rubber, effective against bacteria, viruses and fungi.	Highly toxic, long contact times, cost prohibitive, use in well ventilated areas.	10 min. +
Ammonia	Ammonia	Effective against Cryptosporidia and mycobacteria (circulating immune complexes)	Causes respiratory irritation, ineffective in the presence of organic material, foul odors	20-30 min.
Chlorine	Household Bleach, Clorox	Low cost, easily available, kills most bacteria, viruses and fungi, also a good deodorizer.	Very caustic to tissue and equipment, not effective against Giardia, rapidly inactivates in presence of organics, loses effectiveness when diluted, not effective against spores, corrosive and deteriorates fabrics, must be rinsed well.	10-15 min.
Iodine	Betadyne, Povidone, Virac, Vanodine	Limited Vapors, long shelf life, effective against many viruses, bacteria and spores.	Must be used at full strength, stains, toxic if ingested, multiple applications for thorough disinfection, not effective against some bacteria and spores.	10 min.
Peroxide	Hydrogen Peroxide, Virkon, Sterisyl	Very useful cleansing and deodorizing solution	Not effective against bacteria, spores and viruses. Damaging to tissue	10-20 min.
Phenols	Lysol, Discan, Pantek, Septicol	Inexpensive, relatively effective in presence of organics, no residual odor, easy to rinse off.	Extremely toxic to pets, toxic to many tissues, not effective against bacterial spores and some viruses, must have adequate ventilation.	10-20 min.
Quaternary Ammonium	Hiltor, 3M Quat, Parvosol, Omega	Effective against gram-positive and negative bacteria, some viruses and chlamydia. Can be used at low concentrations.	very difficult to rinse, not effective against many viruses and bacteria. ingestion may cause paralysis or death.	10-20 min.
Steam	Steam	Non toxic, no residue or odor. Kills most viruses and bacteria above 165 degrees. very economical. No use of chemicals.	Costly equipment, typically bulky. Large amounts of steam are required to clean small areas. Steam can break glass and damage other equipment.	Based on sq. ft.
Wood Tar Distillates	Pine-Sol, Hexol	Available anywhere, low cost, usually a nice odor, low toxicity, generally a good cleaning product for removing organic debris.	Hard to rinse, leaves slick feel, very low grade disinfectant.	