

# The Antimicrobial Spectrum of Disinfectants

## Chemical Disinfectants

**Note: Removal of organic material must always precede the use of any disinfectant.**

	Acids (hydrochloric acid, acetic acid, citric acid)	Alcohols (ethyl alcohol, isopropyl alcohol)	Aldehydes (formaldehyde, paraformaldehyde, glutaraldehyde)	Alkalis (sodium or ammonium hydroxide, sodium carbonate)	Biguanides (chlorhexidine <sup>®</sup> , Nolvasan <sup>®</sup> , Chlorhex <sup>®</sup> , Virosan <sup>®</sup> , Hibistat <sup>®</sup> )	Halogens hypochlorite iodine	Oxidizing Agents (hydrogen peroxide, peroxyacetic acid, Trifectant <sup>®</sup> , Virkon-S <sup>®</sup> , Oxy-Sept 333 <sup>®</sup> )	Phenolic Compounds (Lysol <sup>®</sup> , Osyl <sup>®</sup> , Amphyl <sup>®</sup> , TekTrol <sup>®</sup> , Pheno-Tek II <sup>®</sup> )	Quaternary Ammonium Compounds (Roccal <sup>®</sup> , Zepharin <sup>®</sup> , DiQuat <sup>®</sup> , Parvosol <sup>®</sup> , D-256 <sup>®</sup> )
<b>most susceptible</b>									
mycoplasmas	+	++	++	++	++	++	++	++	+
gram-positive bacteria	+	++	++	+	++	+	+	+	++
gram-negative bacteria	+	++	++	+	++	+	+	+	++
pseudomonads	+	++	++	+	+	+	+	++	-
rickettsiae	+	+	+	+	+	+	+	+	+
enveloped viruses	+	+	++	+	+	+	+	+	+
chlamydiae	+	+	+	+	+	+	+	+	-
non-enveloped viruses	-	-	+	+	-	+	+	-	-
fungal spores	+	+	+	+	+	+	+	+	+
picornaviruses (i.e. FMD)	+	N	+	+	N	N	N	N	N
parvoviruses	N	N	+	N	N	+	N	N	+
acid-fast bacteria	-	+	+	+	-	+	+	+	-
bacterial spores	+	-	+	+	-	+	+	+	-
coccidia	-	-	-	+	-	-	-	+	-
prions	-	-	-	-	-	-	-	-	-

**most resistant**

**LEGEND**

- ++ highly effective
- + effective
- + limited activity
- no activity
- N information not available

a-varies with composition  
 b-peracetic acid, a strong oxidizing agent, is sporicidal  
 c-ammonium hydroxide  
 d-some have activity against coccidia



Adapted from Linton AH, Hugo WB, Russell AD. Disinfection in Veterinary and Farm Practice. 1987. Blackwell Scientific Publications; Oxford, England.  
 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.