

Summary of Disinfectants

Practical requirements

Disinfectants	Practical Requirements					Inactivates					
Type	Category	Use Dilution	Contact Time		Temp (C)	Relative Humidity	Vegetative bacteria	Lipovirus	Nonlipid Viruses	Bacterial Spores	
			Lipovirus	Broad Spectrum							
Liquid	Quaternary ammonium compounds	0.1%–2.0 %	10	Not effective			+	+			
	Phenolics	1.0%–5.0 %	10	Not effective			+	+	Variable results dependent on virus		
	Chlorine compounds	500 ppm	10	30			+	+	+	+	
	Iodophor	25–1600 ppm (available halogen)	10	30			+	+	+	+	
	Alcohol, Ethyl	70%–85%	10	Not effective			+	+	Variable results dependent on virus		
	Alcohol, isopropyl	70%–85%	10	Not effective			+	+	Variable results dependent on virus		
	Formaldehyde	0.2%–8.0 %	10	30			+	+	+	+	
	Glutaraldehyde	2.00%	10	30			+	+	+	+	
	Gas	Ethylene oxide	8–23 g/cubic foot	60	60	37	30	+	+	+	+
		Paraformaldehyde	0.3 g/cubic foot	60	60	gt;23	gt;60	+	+	+	+

Note: The chart below provides guidelines for surface decontamination only. For chemical disinfection of liquid biohazardous waste, the only university-wide approved disinfectant for UCSD is bleach (1 part bleach to 9 parts liquid waste, 30 min. contact time, followed by sewerage). If your laboratory wishes to inquire on the use of alternative disinfectants to inactivate liquid biohazardous waste, please [send an email](#) with the following information:

- Material to be disinfected
- Chemical to be used
- Concentration of chemical
- Contact time
- Disposal method (sewerage, hazardous waste pickup)

You will receive a response within five (5) working days regarding approval.

Important: These charts are intended for use by University of California San Diego researchers only. Standards and requirements may differ at other institutions and businesses.

				flammable nor explosive in 90% CO ₂ , or fluorinated hydrocarbo n, the usual form								
Parafor- maldehyde	N/A		+	+			+	+	+	+	+	+
			At concentration s of 7%-73% by volume in air, solid- exposure to open flame	At concentratio ns of 7%- 73% by volume in air, solid- exposure to open flame								

** Special considerations (compatible for optics): Usually compatible, but consider interferences from residues and effects on associated materials such as mounting. Return to Compatible with Optics*

Examples of proprietary disinfectants

Disinfectants		Examples of
Type	Category	proprietary disinfectants
Liquid	Quaternary ammonium compounds	A-33, CDQ, End-Bac, Hi-Tor, Mikro-Quat
	Phenolic compounds	Hil-Phene, Matar, Midro-Bac, O-Syl
	Chlorine compounds	Chloramine T, Chlorox, Purex
	Iodophor	Hy-sine, Ioprep, Mikroklene, Wescodyne
	Alcohol, ethyl	N/A
	Alcohol, isopropyl	N/A
	Formaldehyde	Sterac
	Glutaraldehyde	Cidex
Gas	Ethylene oxide	Carboxide, Cryoxidex, Steroxidex
	Paraformaldehyde	N/A