

UVC germicidal lamp emits 253.7nm short-wave ultraviolet radiation. The rationale of the germicidal lamp is to change or damage microorganism's DNA and makes it unable to proliferate. It is widely used in hospital air conditioning systems, disinfection cabinets, swimming pools and food industry, etc.

Germicidal Efficiency

Microorganism		Time (second)	Microorganism		Time (seconds)
Bacteria	Bacillus Anthracis	0.3	Mycotic spore	Aspergillus Niger	0.3-6.7
	Clostridium Tetani	0.3		Mucor Mucedo	4.6
	Dysentery Bacilli	1.5		Penicillium Rogueforti	0.9-3
	Escherichia Coli	0.4			
	Staphylococcus Albus	1.3	Algae	Blue-green Algae	10-40
	Micrococcus Candidus	0.4		Nematode Eggs	3.4
				Green Algae	1.2
Virus	Bacteriophage	0.2		Protozoa	4.0-6.7
	Influenza	0.3			
	Poliovirus 1	0.8	Horse Sickness	Leukoderma	2.7
	Hepatitis B Virus	0.8		Infectious Disease Pancreatic Necrosis	4
				Viral Bleeding	1.6

The effectiveness of germicidal UV in such an environment depends on a number of factors: the length of time a micro-organism is exposed to UV, power fluctuations of the UV source that impact the EM wavelength, the presence of particles that can protect the micro-organisms from UV, and a micro-organism's ability to withstand UV during its exposure.