

UV Inactivation of Pathogens



Pure, safe water.
Always.

Pathogen	Average UV Dose (mJ/cm ²) Required to Inactivate			
	1log	2log	3log	4log
Cryptosporidium parvum	3.0	4.9	6.4	7.9
Giardia lamblia cysts	NA	<5	<10	<10
Giardia muris cysts	1.2	4.7	NA	NA
Vibrio cholerae	0.8	1.4	2.2	2.9
Shigella dysenteriae	0.5	1.2	2.0	3.0
Escherichia coli O157:H7	1.5	2.8	4.1	5.6
Salmonella typhi	1.8-2.7	4.1-4.8	5.5-6.4	7.1-8.2
Shigella sonnei	3.2	4.9	6.5	8.2
Salmonella enteritidis	5	7	9	10
Legionella pneumophila	3.1	5	6.9	9.4
Hepatitis A virus	4.1-5.5	8.2-14	12-22	16-30
Poliovirus Type 1	4-6	8.7-14	14-23	21-30
Coxsackie B5 virus	6.9	14	22	30
Rotavirus SA11	7.1-9.1	15-19	23-26	31-36

- NA – Data Not Available
- Data summarized from the US EPA Workshop on UV Disinfection of Drinking Water, April 28-29, 1999, Arlington, VA