SANITY SYSTEM®

OZONO SI * MA IN SICUREZZA * SANITY SYSTEM *

Inattivazione di virus e batteri con Ozono

Organismo	% di riduzione	tempo (min.)	concentrazione(mg/l)	pH	temp. (°C)	mezzo	tipo reazione	commenti	referenze
Escherichia Coli	**99,99**	**1,67**	**0,23 - 0,26**	7	24	ozone demand free water	completely mixed continuous flow-through		Farooq and Akhlaque (1983)
Legionella Pneumophila E221ADP	**99,997**	**20**	**0,32**	7	24	sterile distilled water	Batch		Edelstein et al. (1982)
Legionella Pneumophila E102A3DP	**99,999**	**20**	**0,32**	7	24	sterile distilled water	Batch		Edelstein et al. (1982)
Mycobacterium Fortuitum	**90**	**1,67**	**0,23 - 0,26**	7	24	ozone demand free water	completely mixed continuous flow-through		Farooq and Akhlaque (1983)
Salmonella Typhimurium	**99,995**	**1,87**	**0,23 - 0,26**	7	24	ozone demand free water	completely mixed continuos flow-through		Farooq and Akhlaque (1983)
Escherichia Coli	**99,9**	**19**	**init. 2,2 res. 0,08**	7,5	18	raw wastewater	continuous flow-through	TSS 85 mg/l COD 100 mg/l	Joret et al. (1982)
Fecal Streptococcus	**99,6**	**19**	**init. 2,2 res. 0,08**	7,5	16	raw wastewater	continuous flow-through	TSS 85 mg/l COD 100 mg/l	Joret et al. (1982)
Escherichia Coli	**99,998**	**0,16**	**0,51**	7	20	water	continuous flow-through		Boyce et al. (1981)
Escherichia Coli	**99**	**0,33**	**0,085**	7,2	1	water	Batch		Katzenelson et al. (1974)
Poliovirus Type 1 (Mahoney)	**99,7**	**1,67**	**0,23 - 0,26**	7	24	ozone demand free water	completely mixed continuous flow-through		Farooq and Akhlaque (1983)
Poliovirus Type 1 (Mahoney)	**90**	**0,75**	**0,32**	4,3	N.R.	water	completely mixed continuous flow-through		Roy et al.
Coxackie-Virus B5	**99,99**	**2,6**	**0,4**	7,2	20	activated sludge reactor effluent	Batch	TSS 12,5 mg/l NH3 1,55 mg/l BOD3 10,6 mg/l COD 37,2 mg/l	Harakeh and Butle (1985)
Poliovirus Type 1	**99**	**20**	**0,2**	7,2	20	activated sludge reactor effluent	Batch	TSS 12,5 mg/l NH3 1,55 mg/l BOD3 10,6 mg/l COD 37,2 mg/l	Harakeh and Butle (1985)
Poliovirus Type 1	**99**	**0,25**	**0,5**	7	24	N.R.	N.R.		Drinking Water and Health (1980)

Organismo	% di riduzione	tempo (min.)	concentrazione(mg/l)	pH	temp. (°C)	mezzo	tipo reazione	commenti	referenze
Enterie Virus	**>98**	**19**	**init. 4,10 res. 0,08**	7,8	18	raw wastewater	continuous flow-through	TSS 103 mg/l COD 231 mg/l	Joret et al. (1982)
Echo Virus Type 1	**99**	**10**	**0,26**	7,2	20	activated sludge effluent	Batch	TSS 12,5 mg/l NH3 1,55 mg/l BOD3 10,6 mg/l COD 37,2 mg/l	Harakeh and Butle (1985)
Bacteriophage f2	**80**	**10**	**0,1**	7,2	20	activated sludge effluent	Batch	TSS 12,5 mg/l NH3 1,55 mg/l BOD3 10,6 mg/l COD 37,2 mg/l	Harakeh and Butle (1985)
Human Rotavirus	**80**	**10**	**0,31**	7,2	20	activated sludge effluent	Batch	TSS 12,5 mg/l NH3 1,55 mg/l BOD3 10,6 mg/l COD 37,2 mg/l	Harakeh and Butle (1985)
Poliovirus Type 1 Sabin	**>97**	**0,16**	**0,21**	7	20	water	continuous flow-through	5TU.bentonite	Boyce et al.

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Coxackie A9	>96	0,16	0,035	7	20	water	continuous flow-through	5TU.bentonite	Boyce et al.
Bacteriophage f2	>99,995	0,1	0,41	7	20	water	continuous flow-through	5TU.bentonite	Boyce et al.

Inattivazione di funghi e spore e fermenti

Organismo	% di riduzione	tempo (min.)	concentrazione (mg/l)	pH	temp. (°C)	mezzo	tipo reazione	commenti	referenze
Candida Parapsilosis	99,6	1,67	0,23 - 0,26	7	24	ozone demand free water	completely mixed continuous flow-through		Farooq and Akhlaque (1983)
Candida Tropicalis	99	0,30	0,02	7,2	20	ozone demand free water	completely mixed continuous flow-through		Kawamura et al. (1986)
Pencilium Roqueforti	99,6	0.45							
Pencilium Expansum	99,6	0.36							
Pencilium Digitarum	99,6	2.26							
Aspergillus Glaucus	99,6	2.26							
Aspergillus Flavus	99,6	2.45							
Aspergillus Niger	99,6	9.10							
Rhizopus Nigricans	99,6	6.06							
Mucor Racemosus (A)	99,6	0.58							
Mucor Racemosus (B)	99,6	0.58							
Oospora Lactis	99,6	0.18							
Saccharomyces	99,6	0.22							
Saccharomyces Spores	99,6	0.29							
Saccharomyces Cerevisiae	99,6	0.22							
Lievito di birra	99,6	0.11							
Lievito del pane	99,6	0.14							

Inattivazione di protozoi con Ozono

Organismo	% di riduzione	tempo (min.)	concentrazione(mg/l)	pH	temp. (°C)	mezzo	tipo reazione	referenze
Naeglaria gruberi	99	7,8	0,55	7	6	water	Batch	4,23
	99	2,1	2	7	5	water	Batch	4,23
	99	4,3	0,3	7	25	water	Batch	1,29
	99	1,1	1,2	7	25	water	Batch	1,29
Glardia muria	99	12,9	0,13	7	5	water	Batch	1,94
	99	2,8	0,7	7	5	water	Batch	1,94
	99	9	0,03	7	25	water	Batch	0,27
	99	1,8	0,15	7	25	water	Batch	0,27
Glardia lamblia	99	5,3	0,1	7	5	water	Batch	0,53
	99	1,1	0,5	7	5	water	Batch	0,53
	99	5,5	0,03	7	25	water	Batch	0,17
	99	1,2	0,15	7	25	water	Batch	0,17

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