

PROSAN EFFERVESCENT CHLORINE TABLET(ECT) MICROBIOLOGICAL TESTING:

EFFECTIVENESS OF ECTs AGAINST BACTERIA USING A MODIFICATION OF EN 1040 UNDER CLEAN CONDITIONS (Ref 13)		
Bacteria	Av Chlorine	Reduction
Bordetella bronchiseptica	2.8 ppm	>99.9%
Enterobacter cloacae	2.8 ppm	>99.9%
Erysipelothrix rhuspathie	2.8 ppm	>99.9%
Listeria monocytogenes	2.8 ppm	>99.9%
Pasteurella multocoda	2.8 ppm	>99.9%
Pseudomonas aeruginosa	2.8 ppm	>99.9%
Yersinia enterocolitica	2.8 ppm	>99.9%
Candida albicans	2.8 ppm	>99.9%

EFFECTIVENESS OF ECTs AGAINST BACTERIA USING A MODIFICATION OF EN 1040 UNDER DIRTY CONDITIONS (50% BOVINE SERUM) (Ref 13)		
Bacteria	Av Chlorine	Reduction
Bordetella bronchiseptica	1100 ppm	>99.9%
Enterobacter cloacae	1100 ppm	>99.9%
Erysipelothrix rhuspathie	1100 ppm	>99.9%
Listeria monocytogenes	1100 ppm	>99.9%
Pasteurella multocoda	1100 ppm	>99.9%
Pseudomonas aeruginosa	1100 ppm	>99.9%
Yersinia enterocolitica	1100 ppm	>99.9%
Candida albicans	1100 ppm	>99.9%

EFFECTIVENESS OF ECTs AGAINST BACTERIA USING BS EN 1276 UNDER CLEAN CONDITIONS (Ref 13)				
BACTERIA	AV CHLORINE	TEMP °C	EXPOSURE TIME	REDUCTION
Pseudomonas aeruginosa	110 ppm	20	5 mins	>99.9%
Escherichia coli	110 ppm	20	5 mins	>99.9%
Staphylococcus aureus	110 ppm	20	5 mins	>99.9%
Enterococcus hirae	110 ppm	20	5 mins	>99.9%

EFFECTIVENESS OF ECTs AGAINST BACTERIA USING BS EN 1276 UNDER CLEAN CONDITIONS (Ref 13)				
BACTERIA	AV CHLORINE	TEMP °C	EXPOSURE TIME	REDUCTION
Pseudomonas aeruginosa	110 ppm	20	5 mins	>99.9%
Escherichia coli	110 ppm	20	5 mins	>99.9%
Staphylococcus aureus	110 ppm	20	5 mins	>99.9%
Enterococcus hirae	110 ppm	20	5 mins	>99.9%

EFFECTIVENESS OF ECTs AGAINST BACTERIA USING BS EN 1276 UNDER DIRTY CONDITIONS (3g/l bovine albumin) (Ref 13)				
BACTERIA	AV CHLORINE	TEMP °C	EXPOSURE TIME	REDUCTION
Pseudomonas aeruginosa	500 ppm	20	5 mins	>99.9%
Escherichia coli	500 ppm	20	5 mins	>99.9%
Staphylococcus aureus	500 ppm	20	5 mins	>99.9%
Enterococcus hirae	500 ppm	20	5 mins	>99.9%

EFFECTIVENESS OF ECTs AGAINST BACTERIA USING BS EN 1650 UNDER CLEAN CONDITIONS (Ref 13)				
FUNGAL STRAIN	AV CHLORINE	TEMP °C	EXPOSURE TIME	REDUCTION
Candida albicans	110 ppm	20	30 mins	>99.9%
Aspergillus niger	110 ppm	20	30 mins	>99.9%

EFFECTIVENESS OF ECTs AGAINST BACTERIA USING BS EN 1650 UNDER DIRTY CONDITIONS (0.3g/l bovine albumin) (Ref 13)				
FUNGAL STRAIN	AV CHLORINE	TEMP °C	EXPOSURE TIME	REDUCTION
Candida albicans	2000 ppm	20	30 mins	>99.9%
Aspergillus niger	2000 ppm	20	30 mins	>99.9%

EFFECTIVENESS OF ECTs AGAINST BACTERIA USING BS EN 1650 UNDER CLEAN CONDITIONS (Ref 13)				
FUNGAL STRAIN	AV CHLORINE	TEMP °C	EXPOSURE TIME	REDUCTION
Candida albicans	200 ppm	20	30 mins	>99.9%
Aspergillus niger	200 ppm	20	30 mins	>99.9%

EFFECTIVENESS OF ECTs AGAINST BACTERIA USING BS EN 1650 UNDER DIRTY CONDITIONS (0.3g/l bovine albumin) (Ref 13)				
FUNGAL STRAIN	AV CHLORINE	TEMP °C	EXPOSURE TIME	REDUCTION
Candida albicans	2000 ppm	20	30 mins	>99.9%
Aspergillus niger	2000 ppm	20	30 mins	>99.9%

Note: All above is in-house data.

VIRUSES

Effectiveness of hypochlorous acid (free available chlorine) against a range of water borne viruses						
ORGANISM	PH	TEMP °C	EXPOSURE TIME	AVAILABLE CHLORINE mgs/litre	BIOCIDAL RESULT	REF
Adenovirus (type 3)	7.8	22	5 mins	0.5	>99.9%	10
Enteroviruses:						
Poliovirus (type 1)	7.8	22	5 mins	0.5	>99.9%	10
Coxsackievirus (type A9)	7.8	22	5 mins	0.5	>99.9%	10
Coxsackievirus (type B5)	6.0	5	13.2 mins	0.5	>99.9%	27
Coliphages MS2	6.0	5	1.2 mins	0.5	>99.9%	27
Coliphages OX174	6.0	5	0.5 mins	0.5	>99.9%	27
Echovirus (type 7)	7.8	22	5 mins	0.5	>99.9%	10
Reovirus (type 3)	7.8	22	5 mins	0.5	>99.9%	10
Hepatitis A	7.0	5	3.6 mins	0.5	>99.9%	11
Infectious hepatitis	6.8	Room	30 mins	3.25	Protected all 12 volunteers	1
Simian rotavirus SAI1	6.0	5	15 secs	0.11-0.67	100%	12

Note: Above testing is bibliography

TOXICITY AND VIRUS TESTS ON EFFERVESCENT CHLORINE TABLET

ORGANISM	TEST STAND ARD	TEMP °C	EXP TIME	AVAILABLE CHLORINE mgs/litre	BIOCIDAL RESULT	REF
Avian Influenza	UK MAFF	4	30 mins	333	>99.9%	38
Newcastle Disease	UK MAFF	4	30 mins	700	>99.9%	38
Infectious Bursal Disease	UK MAFF	4	30 mins	500	>99.9%	38
Laryngo-tracheitis infection	UK MAFF	4	30 mins	700	>99.9%	38
Avipox virus	UK MAFF	4	30 mins	700	>99.9%	38
Foot and mouth disease virus	UK MAFF	4	30 mins	354	>99.9%	39
Swine vesicular disease virus	UK MAFF	4	30 mins	368	>99.9%	39

Note: Above is in-house data.