

Organism	Strain( where stated)	Ref. No	Country	Comments	Pass Dilution(s)/ Concentration(s)
<i>Actinobacillus pleuropneumoniae</i>	not specified	29	England	laboratory own	0,180555556
<i>Actinobacillus pleuropneumoniae</i>	ATCC 43336	144	USA	AOAC	0,111111111
<i>Actinobacillus pleuropneumoniae</i>	field isolate	35	Japan	laboratory own	0,736111111
<i>Actinobacillus pleuropneumoniae</i>	ATCC 27089	272	USA	AOAC	0,111111111
<i>Aeromonas hydrophila</i>	not specified	41	Finland	laboratory own	0,180555556
<i>Aeromonas salmonicida</i>	Subsp achromogenes	41	Finland	laboratory own	0,180555556
<i>Aeromonas salmonicida</i>	Subsp salmonicida	41	Finland	laboratory own	0,111111111
<i>Aeromonas salmonicida</i>	Subsp achromogenes	88	Sweden	laboratory own	0,111111111
<i>Aeromonas salmonicida</i>	Subsp salmonicida ATCC 14174	191	Norway	laboratory own	0,180555556
<i>Bacillus cereus</i>	ATCC 14579	122	USA	laboratory own	0,111111111
<i>Bacillus cereus</i>	ATCC 14579	157	USA	laboratory own	0,111111111
<i>Bacillus subtilis</i>	ATCC 19659	130	USA	laboratory own	0,111111111
<i>Bacillus subtilis</i>	NCIMB 8058	130	USA	laboratory own	0,111111111
<i>Bordetella avium</i>	not specified	70	USA	AOAC	0,111111111
<i>Bordetella bronchiseptica</i>	not specified	29	England	laboratory own	0,145833333
<i>Bordetella bronchiseptica</i>	not specified	70	USA	AOAC	0,111111111
<i>Brachyspira hyodysenteriae</i>	2 strains				
<i>Brachyspira pilosicoli</i>	ATCC 51139	219	Czech Republic	laboratory own	>1:3333
<i>Brucella abortus</i>	ATCC 4315	126	USA	laboratory own	0,111111111
<i>Campylobacter coli</i>	Strain 169	23	Sweden	laboratory own	0,111111111
<i>Campylobacter jejuni</i>	Strain 167	23	Sweden	laboratory own	0,111111111
<i>Campylobacter jejuni</i>	ATCC 29428	145	USA	modified AOAC	0,111111111
<i>Campylobacter jejuni</i>	type 365	227	Holland	EN1656	0,180555556
<i>Campylobacter pyloridis*</i>	GBL775	151	USA	AOAC	0,111111111
<i>Chlamydia psittaci</i>	VR-125 (Strain 6BC)	133	USA	AOAC	0,111111111
<i>Clavibacter michiganensis</i>	subsp. michiganensis	167	Canada	laboratory own	0,388888889

<i>Clavibacter michiganensis</i>	subsp. sepedonicus	42	Finland	laboratory own	0,111111111
<i>Clostridium perfringens</i>	ATCC13124	129	USA	AOAC	0,111111111
<i>Clostridium perfringens</i>	ATCC13124	169	USA	AOAC	0,111111111
<i>Coxiella burnetii</i>	Nine mile strain RS493	241	Holland	EN1656	1:100 / 1:50
<i>Dermatophilus congolensis</i>	ATCC 14637	132	USA	AOAC	0,111111111
<i>Enterococcus faecium</i>	ATCC 10541	158	England	EST	0,111111111
<i>Enterococcus hirae</i>	CIP 58.55	148	France	AFNOR NF T 72-171	0,180555556
<i>Enterococcus hirae</i>	CIP 58.55	149	France	AFNOR NF T 72-190	0,111111111
<i>Enterococcus hirae</i>	ATCC 10541	220	Italy	EN1656	0,111111111
<i>Enterococcus hirae</i>	Eh/FH64/a	194	UK	EN1276	0,111111111
<i>Enterococcus hirae</i>	CIP 58.55	196	France	EN1276	0,180555556
<i>Erwinia amylovora</i>	ICMP 9148	77	New Zealand	laboratory own	0,215277778
<i>Erysipelothrix rhusiopathiae</i>	not specified	70	USA	laboratory own	0,111111111
<i>Erysipelothrix rhusiopathiae</i>	field isolate	35	Japan	laboratory own	0,736111111
<i>Escherichia coli</i>	Strain NCTC 8196	45	Sweden	laboratory own	0,111111111
<i>Escherichia coli</i>	Strain ATCC 11229	78	England	laboratory own	0,180555556
<i>Escherichia coli</i>	ATCC 11229	117	USA	AOAC	0,111111111
<i>Escherichia coli</i>	ATCC 11229	118	USA	AOAC	0,180555556
<i>Escherichia coli</i>	ATCC 11229	130	USA	AOAC	0,111111111
<i>Escherichia coli</i>	NCIMB 9517	130	USA	AOAC	0,111111111
<i>Escherichia coli</i>	CIP 54.127	148	France	AFNOR NF T 72-171	0,180555556
<i>Escherichia coli</i>	CIP 54.127	149	France	AFNOR NF T 72-190	0,111111111
<i>Escherichia coli</i>	GBL 642	151	USA	AOAC	0,111111111
<i>Escherichia coli</i>	Strain O157	164	England	laboratory own	0,111111111
<i>Escherichia coli</i>	not specified	177	Canada	laboratory own	0,111111111
<i>Escherichia coli</i>	EcFH/64/a	194	UK	EN1276	0,111111111
<i>Escherichia coli</i>	strain O157	194	UK	EN1276	0,111111111
<i>Escherichia coli</i>	strain CIP 54.127	196	France	EN1276	0,180555556

Escherichia coli	Bacteriophage T2 with E coli B	198	France	AFNOR 72-181	0,736111111
Escherichia coli	Bacteriophage MS 2 with E coli HfrH	198	France	AFNOR 72-181	0,388888889
Escherichia coli	Bacteriophage OX 174 with E coli ATCC 13706	198	France	AFNOR 72-181	1,430555556
Escherichia coli	ATCC 11229	202	USA	AOAC	0,111111111
Escherichia coli	field isolate	35	Japan	laboratory own	0,736111111
Efficacy Summary Virkonâ„¸ S: Bacteria					
Organism	Strain( where stated)	Ref. No	Country	Comments	Pass Dilution(s)/ Concentration(s)
Escherichia coli	ESBL NCTC 11560	258	UK	EN1656	0,111111111
Haemophilus somnus	not specified	70	USA	AOAC	0,111111111
Klebsiella pneumoniae	GBL 132	151	USA	AOAC	0,111111111
Klebsiella pneumoniae	ATCC 4352	212	USA	AOAC	0,111111111
Klebsiella pneumoniae	ESBL NCTC 13368	258	UK	EN1656	0,111111111
Lawsonia intracellularis	2 strains	163	Scotland	laboratory own	0,111111111
Lawsonia intracellularis	field isolate	245	Australia	laboratory own	0,111111111
Legionella pneumophila	NCTC 11192	32	England	laboratory own	3,513888889
Listeria monocytogenes	not specified	70	USA	AOAC	0,111111111
Listeria monocytogenes	lux AD recombinant	120	England	laboratory own	0,111111111
Listeria monocytogenes	lux AD recombinant	120	England	laboratory own	1,013888889
Listeria monocytogenes	ATCC 19117	190	USA	AOAC	0,111111111
Listeria monocytogenes	LmFH66/a	194	UK	laboratory own	0,111111111
Moraxella bovis		70	USA	AOAC	0,111111111
Mycoplasma gallisepticum	Strain 56	4	England	laboratory own	01:50
Mycoplasma gallisepticum	not specified	49	USA	laboratory own	0,111111111
Mycoplasma hyorhinis	not specified	29	England	laboratory own	0,597222222
Mycoplasma mycoides	3 strains B102 strain Afade and NCTC 10114	186	UK	laboratory own	0,180555556

<i>Mycoplasma mycoides</i>	3 strains (Portugal B103) Africa (strain Afade) NCTC (10114)	189	UK	laboratory own	0,18055556
<i>Ornithobacterium rhinotracheale</i>	not specified	177	Canada	laboratory own	0,11111111
<i>Pasteurella haemolytica</i>	not specified	70	USA	AOAC	0,11111111
<i>Pasteurella multocida</i>	Strain CB169	24	England	laboratory own	0,14583333
<i>Pasteurella multocida</i>	ATCC 12947	125	USA	AOAC	0,11111111
<i>Pasteurella multocida</i>	not specified	177	Canada	laboratory own	0,11111111
<i>Pasteurella multocida</i>	field isolate	35	Japan	laboratory own	0,73611111
<i>Proteus mirabilis</i>	ATCC 14153	158	England	EST	0,11111111
<i>Proteus vulgaris</i>	ATCC 13315	220	Italy	EN1656	
<i>Proteus vulgaris</i>	Strain NCTC 4635	61	England	laboratory own	Powder
<i>Proteus vulgaris</i>	Strain NCTC 4635	67	England	laboratory own	Powder
<i>Providencia stuartii</i>	EMAI source strain	246	Australia	laboratory own	0,18055556
<i>Pseudomonas aeruginosa</i>	Strain NCTC 6749	67	England	laboratory own	Powder
<i>Pseudomonas aeruginosa</i>	ATCC 15442	75	England	AOAC	01:50
<i>Pseudomonas aeruginosa</i>	ATCC 15442	113	USA	AOAC	0,18055556
<i>Pseudomonas aeruginosa</i>	ATCC 15442	114	USA	AOAC	0,11111111
<i>Pseudomonas aeruginosa</i>	ATCC 15442	130	USA	laboratory own	0,11111111
<i>Pseudomonas aeruginosa</i>	NCIMB 10421	130	USA	laboratory own	0,11111111
<i>Pseudomonas aeruginosa</i>	CIP A22	148	France	AFNOR NF T 72-171	0,18055556
<i>Pseudomonas aeruginosa</i>	CIP A22	149	France	AFNOR NF T 72-190	0,11111111
<i>Pseudomonas aeruginosa</i>	ATCC15442	150	USA	AOAC	0,11111111
<i>Pseudomonas aeruginosa</i>	NCIMB 10421	157	USA	laboratory own	0,11111111
<i>Pseudomonas aeruginosa</i>	Pa FH 72/a	194	UK	EN1276	0,11111111
<i>Pseudomonas aeruginosa</i>	CIP103467	196	France	EN1276	0,18055556
<i>Pseudomonas aeruginosa</i>	ATCC 15442	158	England	EST	0,11111111
<i>Pseudomonas aeruginosa</i>	ATCC 15442	220	Italy	EN1656	0,11111111
<i>Pseudomonas aeruginosa</i>	field isolate	35	Japan	laboratory own	0,73611111
<i>Pseudomonas aeruginosa</i>	ATCC 15442	257	USA	Biofilm study	0,11111111

<i>Pseudomonas anguilliseptica</i>		88	Sweden	laboratory own	0,111111111
<i>Renibacterium salmoninarum</i>	not specified	88	Sweden	laboratory own	0,111111111
<i>Salmonella</i> 4	not specified	65	Denmark	laboratory own	0,111111111
<i>Salmonella arizona</i>	not specified	177	Canada	laboratory own	0,111111111
<i>Salmonella choleraesuis</i>	ATCC 10708	75	England	AOAC	01:50
<i>Salmonella choleraesuis</i>	ATCC 23564	146	USA	AOAC	0,111111111
<i>Salmonella choleraesuis</i>	ATCC 10708	150	USA	AOAC	0,111111111
<i>Salmonella choleraesuis</i>	ATCC 23564(serotype typhimurium)	152	USA	AOAC	0,111111111
Efficacy Summary Virkonâ„¸ S: Bacteria					
Organism	Strain( where stated)	Ref. No	Country	Comments	Pass Dilution(s)/ Concentration(s)
<i>Salmonella enteritidis</i>	Phage type 4	28	England	laboratory own	0,111111111
<i>Salmonella enteritidis</i>	not specified	70	USA	AOAC	01:50
<i>Salmonella enteritidis</i>	NCTC 13665	weblink	England	DEFRA approval	0,111111111
<i>Salmonella enterica</i>	ATCC 10708	279	Germany	EN1656	0,319444444
<i>Salmonella serovar gallinarum-pullorum</i>	field isolate	35	Japan	laboratory own	0,736111111
<i>Salmonella heidelberg</i>	not specified	65	Denmark	laboratory own	01:15
<i>Salmonella indiana</i>	not specified	65	Denmark	laboratory own	01:15
<i>Salmonella llandorf</i>	not specified	65	Denmark	laboratory own	01:15
<i>Salmonella montevideo</i>	not specified	65	Denmark	laboratory own	01:15
<i>Salmonella thomasville</i>	not specified	65	Denmark	laboratory own	0,180555556
<i>Salmonella typhimurium</i>	Strain HT-2	35	Japan	laboratory own	0,388888889
<i>Salmonella typhimurium</i>	GBL 106	151	USA	AOAC	0,111111111
<i>Salmonella typhimurium</i>	DT104	165	England	pr EN1656	0,180555556
<i>Salmonella typhimurium</i>	ATCC 23564	202	USA	AOAC	0,111111111
<i>Salmonella typhimurium</i>	St FH 68/a	194	England	EN1276	0,111111111
<i>Salmonella enteritidis</i>	CVI-WUR-Lelystad strain	227	Holland	EN1656	0,180555556
<i>Salmonella hadar</i>	CVI-WUR-Lelystad strain	227	Holland	EN1656	0,180555556
<i>Salmonella infantis</i>	CVI-WUR-Lelystad strain	227	Holland	EN1656	0,180555556

Salmonella typhimurium	CVI-WUR-Lelystad strain	227	Holland	EN1656	0,180555556
Salmonella virchow	CVI-WUR-Lelystad strain	227	Holland	EN1656	0,180555556
Salmonella java	Salmonella paratyphi B biovar Java	195	Holland	EN1656	0,111111111
Serpulina hyodysenteriae *	Isolate P152	36	Scotland	laboratory own	0,319444444
Serpulina hyodysenteriae *	not specified	70	USA	AOAC	0,111111111
* The Treponemas have changed their name to the Serpulinas.					
Serratia marcescens	not specified	64	Canada	laboratory own	0,111111111
Shigella sonnei	ATCC 25931	121	USA	EPA	0,111111111
Staphylococcus aureus	ATCC 6538	31	Holland	AFNOR 72-171	0,111111111
Staphylococcus aureus	not specified	49	USA	AOAC	0,111111111
Staphylococcus aureus	ATCC 6538	75	England	laboratory own	01:50
Staphylococcus aureus	ATCC 6538	115	USA	AOAC	0,111111111
Staphylococcus aureus	ATCC 6538	116	USA	AOAC	0,180555556
Staphylococcus aureus	ATCC 6538	130	USA	laboratory own	0,111111111
Staphylococcus aureus	NCIMB 9518	130	USA	laboratory own	0,111111111
Staphylococcus aureus	CIP 53.154	148	France	laboratory own	1,430555556
Staphylococcus aureus	CIP 53.154	149	France	AFNOR NF T 72-190	0,111111111
Staphylococcus aureus	ATCC 6538	150	USA	AOAC	0,111111111
Staphylococcus aureus	ATCC 6538	158	UK	EST	0,111111111
Staphylococcus aureus	Sa FH73/a	194	UK	EN1276	0,111111111
Staphylococcus aureus	CIP 4.83	196	France	EN1276	0,111111111
Staphylococcus aureus	not specified	177	Canada	laboratory own	0,111111111
Staphylococcus aureus	CIP 4.83	197	France	AFNOR NF T 72-190	0,111111111
Staphylococcus aureus	ATCC 6538	220	Italy	EN1656	0,111111111
Staphylococcus aureus	pig MRSA isolate	227	Holland	EN1656	0,111111111
Staphylococcus aureus	ATCC 6538	212	USA	AOAC	0,111111111
Staphylococcus aureus	field isolate	35	Japan	laboratory own	0,736111111

Staphylococcus epidermidis	ATCC 12228	202	USA	AOAC	0,111111111
Staphylococcus epidermidis	ATCC 14990	106	Italy	laboratory own	0,111111111
Staphylococcus epidermidis	GBL 6	151	USA	AOAC	0,111111111
Staphylococcus intermedius	Noble 4060	147	UK	AOAC	0,180555556
Streptococcus equi	not specified	39	Scotland	laboratory own	0,111111111
Streptococcus equi	not specified	70	USA	AOAC	0,111111111
Streptococcus lactis	lactic 66 Strep lactis bacteriophage	198	France	AFNOR 72-181	2,819444444
Streptococcus pyogenes	GBL 7	151	USA	AOAC	0,111111111
Streptococcus pyogenes	ATCC 11229	202	USA	AOAC	0,111111111
Streptococcus suis	Strain CB194	24	England	laboratory own	0,145833333
Streptococcus suis	field isolate	35	Japan	laboratory own	0,736111111
Streptococcus suis	ATCC 43765	124	USA	AOAC	0,111111111
Streptococcus suis	NCTC 10234	252	UK	EN1656	0,319444444
Streptococcus zooepidemicus	not specified	39	Scotland	laboratory own	0,111111111
Efficacy Summary Virkonâ„¸ S: Bacteria					
Organism	Strain( where stated)	Ref. No	Country	Comments	Pass Dilution(s)/ Concentration(s)
Taylorella (Haemophilus) equigenitalis	CEM 1574/87	68	Sweden	laboratory own	0,319444444
Taylorella (Haemophilus) equigenitalis	CEM 769/87	68	Sweden	laboratory own	0,319444444
Taylorella (Haemophilus) equigenitalis	CEM 3336/88	68	Sweden	laboratory own	0,319444444
Taylorella (Haemophilus) equigenitalis	CEM 486/91	68	Sweden	laboratory own	0,111111111
Taylorella (Haemophilus) equigenitalis	taylorella CEM	70	USA	AOAC	0,111111111
Vibrio anguillarum	serotype 1	88	Sweden	laboratory own	0,111111111
Vibrio harveyi	VO22, VH1280	181	Thailand	laboratory own	2ppm
Vibrio spp.	LY, 4Y	181	Thailand	laboratory own	2ppm
Xanthomonas campestris	Isolate 90-222	159	Holland	laboratory own	0,111111111
Xanthomonas axonopodis	ATCC 49118	201	USA	AOAC	0,111111111

Yersinia enterocolitica	YeFH67/a	194	UK	EN1276	0,111111111
Yersinia ruckeri	not specified	41	Finland	laboratory own	01:50
Yersinia ruckeri	ATCC 29473	192	Norway	EN1276	0,111111111
Yersinia ruckeri	serotype 1	88	Sweden	laboratory own	0,111111111
	not specified				

ND = not declared

Note: weblink where stated refers to UK DEFRA Disinfectants list of approved products