

ZOONO Z-71™ MICROBE SHIELD

Pathogens Inactivated by Zoono Application

The following table lists the pathogens that are killed or inactivated following application of Zoono to various substrates and materials. This table does not reflect the activity of Zoono in the liquid form.

Gram Positive Bacteria	Reference
Bacillus sp. (vegetative cell)	5, 6, 11
Corynebacterium diptheriae	1, 13
Micrococcus lutea	5, 6, 11
Micrococcus s p.	2, 5, 15
Mycobacterium tuberculosis	14, 36
Mycobacterium smegmatis	14
Propionibacterium acnes	5
Staphylococcus aureus *	2, 3, 5, 6, 10, 11, 13, 24, 15, 21
Staphylococcus epidermidis	2, 5, 6, 7, 11, 13, 14, 15
Streptococcus faecalis	2, 5, 6, 7, 11, 13, 14
Streptococcus mutans	5, 6, 7, 11
Streptococcus pneumonia	1
Streptococcus pyogenes	5, 6, 7, 11

Gram Negative Bacteria	Reference
Acinetobacter calcoaceticus	2, 5, 6, 11, 14, 15
Aeromonas hydrophilia	5, 6, 11
Citrobacter deversus	5, 6, 11
Citrobacter freundii	5, 6, 11
Enterobacter aerogenes	5, 6, 7, 11
Enterobacter agglomerans	2, 5, 14, 15
Enterobacter cloacae	5, 6, 7, 11
Enterococcus	10
Escherichia coli	1, 2, 3, 5, 6, 7, 10, 11, 13, 14
Klebsiella oxytoca	5, 6, 11, 14
Klebsiella pneumoniae	3, 5, 6, 7, 9, 10, 11, 13, 14
Klebsiella terrigena	19
Legionella pneumophila	1
Morganella morganii	5, 6, 7, 11
Proteus mirabilis	5, 6, 7, 11
Proteus vulgaris	5, 6, 7, 11
Pseudomonas aeruginosa	2, 3, 5, 6, 7, 11, 13, 14
Pseudomonas fluorescens	5, 6, 7, 10, 11
Salmonella cholerae suis	5, 6, 7, 11, 14
Salmonella typhi	5, 6, 7, 11, 14

Contd...

Gram Negative Bacteria	Reference
Salmonella typhimurium	1, 5, 6, 7, 11
Serratia liquifaciens	5, 6, 7, 11
Serratia marcescens	5, 6, 7, 11
Xanthomonas campestris	5, 6, 7, 11

Viruses	Reference
Adenovirus Type II & IV	17, 18, 21
Bovine Adenovirus Type I & IV	17, 18, 21
Feline pneumonitis	21
Herpes Simplex Type I	16, 17, 18
Herpes Simplex Type II	21
HIV-1 (AIDS)	21
Influenza A2 (Aichi)	17, 18, 21
Influenza A2 (Asian)	17, 18
Influenza B	17, 18
Mumps	17, 18
Parinfluenza (Sendai)	21
Rous S arcoma	17, 18
Reovirus Type I	17, 18
Simian Virus 40	17, 18
Vaccinia	17, 18
MS2	19
PRD1	19
H1N1 (Swine Flu)	34
Norovirus	35
Middle East Respiratory Syndrome (MERS)	37
Ebola ** (See Note)	38

Fungi, Algae, Mold, Yeast, Spores	Reference
Alterania alternate	8,12
Aphanizomenon s p.	22
Aspergillus flavus	2, 5, 6, 7, 11, 14
Aspergillus niger	2, 5, 6, 7, 8, 11, 12, 13, 14
Aspergillus sydowi	5, 6, 7, 11
Aspergillus terreus	5, 6, 7, 11, 14
Aspergillus versicolor	2, 5, 6, 7, 11
Aspergillus verrucaria	14
Aureobasidium pullans	5, 6, 7, 8, 11, 12
Candida albicans	1, 2, 5, 6, 7, 14
Candida pseudotropicalis	5, 6, 7, 11

Contd...

Fungi, Algae, Mold, Yeast, Spores	Reference
Chaetomium globsum	1
Cladosporium cladosporioides	8, 12
Chlorella vulgaris	19
Dreschlera australiensis	8, 12
Epidermophyton s p.	9
Gliomastix cerealis	8, 12
Gloeophyllum trabeum	5, 6, 7, 11
Microsporum s p.	9
Microsporum audouinii	21
Monilia grisea	8, 12
Oscillatoria	20
Penicillium chrysogenum	5, 6, 7, 11
Pencillium commune	8, 12
Penicillium funiculosum	1, 2, 5, 6, 7, 11, 14
Penicillium pinophilium	5, 6, 7, 11
Penicillium variable	5, 6, 7, 11, 14
Phoma fimeti	8, 12
Pithomyces chartarum	8, 12
Poria placenta	5, 6, 7, 11
Scenedesmus	20
Saccharomyces cerevisiae	5, 6, 7, 11, 13, 14
Scolecobasidium humicola	8, 12
Selenastrum s p.	22
Trichoderma viride	5, 6, 7, 11
Trichophyton interdigitale	2, 14
Trichophyton maidson	14
Trichophyton mentogrophytes	5, 6, 7, 9, 11
Trichophyton sp.	9

Protozoa Parasites	Reference
Cryptosporidium parvum (oocysts)	19

Note:

**Special formulation containing H₂O₂ + Zoono quaternary ammonium compound active