

## Efficacy Data

### RTU DISINFECTANT

#### Disinfection Data

**Test Method:** AOAC Germicidal Spray Products as Disinfectants

**Test Conditions:** Ready to use (RTU), organic soil load, room temperature, glass slide carrier substrates

**Conclusion:**

Under the conditions of this investigation, **Ready-to-use Disinfectant**, was bactericidal for *Staphylococcus aureus*,

*Salmonella enterica* (ATCC 10708), *Pseudomonas aeruginosa*, *Enterococcus faecalis* (Vancomycin Resistant)(VRE), *Escherichia coli* 0157:H7, *Escherichia coli*, *Staphylococcus aureus* (Methicillin Resistant) (MRSA), *Streptococcus pyogenes* (Necrotizing Fasciitis-Group A), *Staphylococcus epidermidis* (Methicillin Resistant) (MRSE), *Corynebacterium ammoniagenes*, *Enterococcus faecium*, *Listeria monocytogenes*, *Salmonella* (typhi) *enterica*, Community

Associated Methicillin Resistant *Staphylococcus aureus* (CA-MRSA), *Yersinia enterocolitica*, *Staphylococcus aureus* (Vancomycin Intermediate Resistant) (VISA), and *Klebsiella pneumoniae* New Delhi Metallo-Beta Lactamase (NDM-1) Carbapenem Resistant according to criteria established by Health Canada for registration and labeling of a disinfectant product as a bactericide.

Results Test Organism	Number of Carriers			
	Sample	Exposed	Positive	Contact Time
<i>Staphylococcus aureus</i> (ATCC 6538)	A	60	0	3 minutes
	B	60	0	
<i>Salmonella enterica</i> (ATCC 10708)	A	60	0	3 minutes
	B	60	0	
<i>Pseudomonas aeruginosa</i> (ATCC 15442)	A	60	0	3 minutes
	B	60	0	
<i>Escherichia coli</i> (ATCC 11229)	A	10	0	3 minutes
	B	10	0	
<i>Enterococcus faecium</i> (ATCC 6569)	A	10	0	3 minutes
	B	10	0	
Vancomycin Resistant <i>Enterococcus faecalis</i> (VRE) (ATCC 51575)	A	10	0	3 minutes
	B	10	0	
<i>Escherichia coli</i> 0157:H7 (ATCC 43895)	A & B	10	0	3 minutes
		10	0	
Methicillin resistant <i>Staphylococcus epidermidis</i> (MRSE) (ATCC 51625)	A	10	0	3 minutes
	B	10	0	
Community Associated Methicillin Resistant	A	10	0	3 minutes
	B	10	0	

Staphylococcus aureus (CA-MRSA)(NRS 123) Genotype USA400				
Streptococcus pyogenes (Necrotizing Fasciitis-Group A) (V.A. Medical Center Isolate 04001)	A	10	0	3 minutes
	B	10	0	
Corynebacterium ammoniagenes (ATCC 6871)	A	10	0	3 minutes
	B	10	0	
Staphylococcus aureus (Vancomycin Intermediate Resistant (VISA) (HIP 5863)	A	10	0	3 minutes
	B	10	0	
Staphylococcus aureus (Methicillin Resistant)(MRSA) (ATCC 33593)	A	10	0	3 minutes
	B	10	0	
Listeria monocytogenes (ATCC 35152)	A	10	0	3 minutes
	B	10	0	
Salmonella (typhi) enterica (ATCC 6539)	A	10	0	3 minutes
	B	10	0	
Yersinia enterocolitica (ATCC 23715)	A	10	0	3 minutes
	B	10	0	
Klebsiella pneumoniae New Delhi Metallo-Beta Lactamase (NDM-1) Carbapenem Resistant	A	10	0	3 minutes
	B	10	0	

## Fungicidal Data

**Test Method:** AOAC Germicidal Spray Products as Disinfectants

**Test Conditions:** Ready to use (RTU), organic soil load, room temperature, glass slide carrier substrates

Results Test Organism	Number of Carriers			
	Sample	Exposed	Positive	Contact Time
Trichophyton interdigitale (ATCC 9533)	A & B & C	60	0	10 minutes

### Conclusion:

Under the conditions of this investigation, Ready-to-use Disinfectant, was fungicidal for Trichophyton interdigitale according to criteria established by Health Canada for registration and labeling of a disinfectant product as a fungicide.

## Virucidal Data

### Test Methods:

- U.S. E.P.A. Pesticide Assessment Guidelines, Subdivision G: Products Performance, Section 91-2 (f), and Section 91-30, (d),(e), November 1982.
- \*\*Modified U.S. E.P.A. Pesticide Assessment Guidelines, Subdivision G: roduct Performance, Section 91-2(f), and Section 91-3(d), (e), November 1982.
- \*\*\*Protocol for Testing Disinfectants against Hepatitis C Virus using Bovine Viral Diarrhea Virus as approved by the U.S. EPA on August 15, 2002.
- -Modified U.S. E.P.A Pesticide Assessment Guidelines, Subdivision G: Product Performance, Section 91-2(f), and Section 91-30 (d), (e), November 1982.

**Test Conditions:** Ready to use (RTU), organic soil load, room temperature, glass petri dish substrates

Results Test Organism	Sample	Titer Reduction	Contact Time
*Rabies Virus (Attenuated ERA strain, CDC)	A & B	3.0 log	30 sec
***Hepatitis C Virus (HCV) (Bovine Viral Diarrhea Virus- BVDV)	A & B	>/=3.0 log	5 minutes
***Bovine Viral Diarrhea Virus (BVDV)	A & B	>/=3.0 log	5 minutes
*Rhinovirus Type 39 (ATCC VR- 340)	A & B	>/=3.0 log	3 minutes
*Rotovirus	A & B	>/=3.0 log	3 minutes
*SARS Associated Coronavirus (ZeptoMetrix)	A & B	4.03 log	2 minutes
*Poliovirus Type 1, strain Brunhilde (ATCC VR-1000)	A & B	>/=3.25 log	10 minutes
*Human Immunodeficiency Virus, HTLV-III <sub>RF</sub> , strain of HIV-1 (associated with AIDS)	A & B	>/=3.5 log	1 minute
*Canine Parvovirus (ATCC VR- 2017)	A & B	>/=3.0 log	10 minutes
-Norovirus (Norwalk Virus)	A & B	6.48 log	30 sec
*Avian Influenza A Virus (H3N2) (Avian Reassortant) (ATCC VR- 2072)	A & B	>/=3.0 log	2 minutes
*Avian Influenza Virus, Type A (Turkey/WIS/66)(H9N2)	A & B	>/=4.83 log	2 minutes
*Hepatitis A Virus (HAV)	A & B	>/=3.0 log	10 minutes
*Human Coronavirus (ATCC VR- 740, strain 229E)	A & B	>/=3.0 log	2 minutes
*Paramyxovirus (Mumps)(ATCC VR-1438)	A & B	>/=3.0 log	3 minutes
-Feline Calicivirus (FCV)	A & B	6.48 log	30 sec

### Virucidal Data Conclusion

Under the conditions of this investigation, Ready-to-use Disinfectant was virucidal for Hepatitis A Virus (HAV), Avian Influenza A Virus (H3N2), Avian Influenza Virus Type A (H9N2), Human Coronavirus, Rabies, Hepatitis C Virus (HCV), Poliovirus Type 1, Human Immunodeficiency Virus (HIV-1), Canine Parvovirus, Rhinovirus Type 39, Rotovirus, SARS Associated Coronavirus, Paramyxovirus (Mumps), Bovine Viral Diarrhea Virus (BVDV), Feline Calicivirus and Norwalk Virus according to criteria established by Health Canada for registration and labeling of a disinfectant product as a virucide.

### Tuberculocidal Data

**Test method:** AOAC Confirmative In Vitro Test for Determining Tuberculocidal Activity

**Test organism:** Mycobacterium bovis BCG

**Test conditions:** Ready-to-use (RTU), organic soil load, 5-minute contact time, glass slide carrier substrates

Results Subculture Media	Sample	Number of Exposed Carriers	Showing Growth
Modified Proskauer- Beck Medium	A	10	0
	B	10	0
Middlebrook 7H9 Broth	A	10	0
	B	10	0
Kirchners Medium	A	10	0
	B	10	0

### Conclusion:

Under the conditions of this investigation, Ready-to-use Disinfectant was tuberculocidal for Mycobacterium bovis (BCG) according to criteria established by Health Canada for registration and labeling of a disinfectant product as a tuberculocide.

### Mildew Fungistatic Data

**Test method:** EPA Hard Surface Mildew Fungistatic Test

**Test organism:** Aspergillus niger (ATCC 6275)

**Test conditions:** Glazed ceramic tile substrates

Results Sample	Sample	Number of Exposed Tiles	Number of Tiles Showing Growth
Ready-to-use Disinfectant Control	A	10	0
	B	10	10

### Conclusion:

Under the conditions of this investigation, **Ready-to-use Disinfectant** was fungistatic for Aspergillus niger according to criteria established by Health Canada for registration and labeling of a disinfectant product as a fungistat.

## Fungicidal Data

**Test method:** AOAC Germicidal Spray Products as Disinfectants

**Test conditions:** Ready-to-use (RTU), organic soil load, room temperature, glass slide carrier substrates

Results Test Organism	Number of Carriers			
	Sample	Exposed	Positive	Contact Time
Trichophyton	A	60	0	10 minutes
mentagrophytes	B	60	0	
(ATCC 9533)	C	60	0	

### Conclusion:

Under the conditions of this investigation, **Ready-to-use Disinfectant** was fungistatic for Trichophyton interdigitale according to criteria established by Health Canada for registration and labeling of a disinfectant product as a fungicide. Ready-to-use Disinfectant has demonstrated effectiveness against Bovine Viral Diarrhea and Influenza A virus and is expected to inactivate all influenza A viruses including 2009 (H1N1) pandemic Influenza A virus.