

## **HYPERFECT RTU**

### **Antibacterial Heavy Duty Cleaner and Odor Counteractant** (EPA Reg. No. 1839-83-85023)

#### **VIRUCIDAL DATA:**

##### **Test Methods:**

\* U.S. E.P.A. Pesticide Assessment Guidelines, Subdivision G: Product Performance, Section 91-2(f), and Section 91-30 (d), (e), November, 1982.

† Protocols for Testing the Efficacy of Disinfectants against Hepatitis B Virus (HBV) (EPA, Federal Register, Vol. 65, No. 166, 8/25/2000, p. 51828).

‡ 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:**

<u>Test Organism</u>	<u>Sample</u>	<u>Titer Reduction</u>	<u>Contact Time</u>
*Avian Influenza A Virus (H3N2) (Avian Reassortant) (ATCC VR-2072)	A&B	$\geq 3.0 \log_{10}$	2 minutes
*Avian Influenza Virus, Type A (Turkey/WIS/66) (H9N2)	A&B	$\geq 4.83 \log_{10}$	2 minutes
‡Bovine Viral Diarrhea Virus (BVDV)	A&B	$\geq 3.0 \log_{10}$	5 minutes
*Canine Parvovirus (ATCC VR-2017)	A&B	$\geq 3.0 \log_{10}$	10 minutes
•Feline Calicivirus (FCV)	A&B	$6.48 \log_{10}$	30 seconds
*Hepatitis A Virus (HAV)	A&B	$\geq 3.0 \log_{10}$	10 minutes
†Hepatitis B Virus (HBV) (Duck Hepatitis B Virus-DHBV)	A&B	$\geq 3.3 \log_{10}$	5 minutes
‡Hepatitis C Virus (HCV) (Bovine Viral Diarrhea Virus-BVDV)	A&B	$\geq 3.0 \log_{10}$	5 minutes
*Human Immunodeficiency Virus, HTLV-III <sub>RF</sub> , strain of HIV-1 (associated with AIDS)	A&B	$\geq 3.5 \log_{10}$	1 minute
*Human Coronavirus (ATCC VR-740, strain 229E)	A&B	$\geq 3.0 \log_{10}$	2 minutes
•Norovirus (Norwalk Virus)	A&B	$6.48 \log_{10}$	30 seconds
*Paramyxovirus (Mumps) (ATCC VR-1438)	A&B	$\geq 3.0 \log_{10}$	3 minutes
*Poliovirus Type 1, strain Brunhilde (ATCC VR-1000)	A&B	$\geq 3.25 \log_{10}$	10 minutes
*Rabies Virus (attenuated ERA strain, CDC)	A&B	$3.0 \log_{10}$	30

			seconds
*Rhinovirus Type 39 (ATCC VR-340)	A&B	$\geq 3.0 \log_{10}$	3 minutes
*Rotovirus	A&B	$\geq 3.0 \log_{10}$	3 minutes
*SARS Associated Coronavirus (ZeptoMetrix)	A&B	$4.03 \log_{10}$	2 minutes

**Conclusion:** Under the conditions of this investigation, this product was **virucidal** for Avian Influenza A Virus (H3N2), Avian Influenza Virus Type A (H9N2), Bovine Viral Diarrhea Virus (BVDV), Canine Parvovirus, Feline Calicivirus (FCV), Hepatitis A Virus (HAV), Hepatitis B Virus (HBV), Hepatitis C Virus (HCV), Human Immunodeficiency Virus (HIV-1), Human Coronavirus, Norovirus (Norwalk Virus), Paramyxovirus (Mumps), Poliovirus Type 1, Rabies, Rhinovirus Type 39, Rotovirus, and SARS Associated Coronavirus according to criteria established by the U. S. Environmental Protection Agency 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:**

<u>Subculture Media</u>	<u>Sample</u>	<u>No. of Exposed Carriers</u>	<u>No. of Carriers Showing Growth</u>
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, this product was **tuberculocidal** for *Mycobacterium bovis* (BCG) according to criteria established by the U.S. Environmental Protection Agency for registration and labeling of a disinfectant product as a tuberculocide.

### BACTERICIDAL 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:**

<u>Organism</u>	<u>Sample</u>	<u>Exposed</u>	<u>No. of Carriers Positive</u>	<u>Contact Time</u>
<i>Staphylococcus aureus</i> (ATCC 6538)	A	60	0	3 minutes
	B	60	1	minutes
<i>Salmonella (choleraesuis) enterica</i> (ATCC 10708)	A	60	0	3 minutes
	B	60	0	minutes
<i>Pseudomonas aeruginosa</i> (ATCC 15442)	A	60	0	3 minutes
	B	60	0	minutes

Community Associated Methicillin Resistant <i>Staphylococcus aureus</i> (CA-MRSA) (NRS 123) Genotype USA400	A	10	0	3
	B	10	0	minutes
Community Associated Methicillin Resistant <i>Staphylococcus aureus</i> (CA-MRSA) (NRS 384) Genotype USA300	A	10	0	3
	B	10	0	minutes
<i>Corynebacterium ammoniagenes</i> (ATCC 6871)	A	10	0	3
	B	10	0	minutes
<i>Enterococcus faecium</i> (ATCC 6569)	A	10	0	3
	B	10	0	minutes
<i>Escherichia coli</i> (ATCC 11229)	A	10	0	3
	B	10	0	minutes
<i>Escherichia coli</i> O157:H7 (ATCC 43895)	A	10	0	3
	B	10	0	minutes
<i>Listeria monocytogenes</i> (ATCC 35152)	A	10	0	3
	B	10	0	minutes
Methicillin resistant <i>Staphylococcus aureus</i> (MRSA) (ATCC 33593)	A	10	0	3
	B	10	0	minutes
Methicillin resistant <i>Staphylococcus epidermidis</i> (MRSE) (ATCC 51625)	A	10	0	3
	B	10	0	minutes
<i>Salmonella (typhi) enterica</i> (ATCC 6539)	A	10	0	3
	B	10	0	minutes
<i>Streptococcus pyogenes</i> (Necrotizing Fasciitis- Group A) (V.A. Medical Center Isolate 04001)	A	10	0	3
	B	10	0	minutes
Vancomycin resistant <i>Enterococcus faecalis</i> (VRE) (ATCC 51575)	A	10	0	3
	B	10	0	minutes
Vancomycin intermediate resistant <i>Staphylococcus aureus</i> (VISA) (CDC Isolate 99287)	A	10	0	3
	B	10	0	minutes
<i>Yersinia enterocolitica</i> (ATCC 23715)	A	10	0	3
	B	10	0	minutes

**Conclusion:** Under the conditions of this investigation, this product was **bactericidal** for *Staphylococcus aureus*, *Salmonella (choleraesuis) enterica*, *Pseudomonas aeruginosa*, Community Associated Methicillin Resistant *Staphylococcus aureus* (CA-MRSA) (NRS 123) Genotype USA400, Community Associated Methicillin Resistant *Staphylococcus aureus* (CA-MRSA) (NRS 384) Genotype USA300, *Corynebacterium ammoniagenes*, *Enterococcus faecium*, *Escherichia coli*, *Escherichia coli* O157:H7, *Listeria monocytogenes*, Methicillin resistant *Staphylococcus aureus* (MRSA), Methicillin resistant *Staphylococcus epidermidis* (MRSE), *Salmonella (typhi) enterica*, *Streptococcus pyogenes* (Necrotizing Fasciitis-Group A), Vancomycin resistant *Enterococcus faecalis* (VRE), Vancomycin intermediate resistant *Staphylococcus aureus* (VISA) and *Yersinia enterocolitica* according to criteria established by the U. S. Environmental Protection Agency for registration and labeling of a disinfectant product as a bactericide.

### MILDEW FUNGISTATIC DATA:

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

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

**Test Conditions:** glazed ceramic tile substrates

**Results:**

<u>Sample</u>	<u>No. of Exposed Tiles</u>	<u>No. of Tiles Showing Growth</u>
DDPS	10	0
Control	10	10

**Conclusion:** Under the conditions of this investigation, this product was **fungistatic** for *Aspergillus niger* according to criteria established by the U. S. Environmental Protection Agency 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:**

<u>Organism</u>	<u>No. of Carriers</u>			<u>Contact Time</u>
	<u>Sample</u>	<u>Exposed</u>	<u>Positive</u>	
<i>Trichophyton mentagrophytes</i> (ATCC 9533)	A	60	0	10 minutes
	B	60	0	
	C	60	0	

**Conclusion:** Under the conditions of this investigation, this product was **fungicidal** for *Trichophyton mentagrophytes* according to criteria established by the U. S. Environmental Protection Agency for registration and labeling of a disinfectant product as a fungicide.