

# HYPERFECT RTU

Antibacterial Heavy Duty Cleaner and Odor Counteractant

Efficacy Data

EPA Reg. # 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:

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

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*Rabies Virus (attenuated ERA strain, CDC)	A	3.0 log <sub>10</sub>	30 seconds
	B	3.0 log <sub>10</sub>	30 seconds
*Rhinovirus Type 39 (ATCC VR-340)	A	≥3.0 log <sub>10</sub>	3 minutes
	B	≥3.0 log <sub>10</sub>	3 minutes
*Rotovirus	A	≥3.0 log <sub>10</sub>	3 minutes
	B	≥3.0 log <sub>10</sub>	3 minutes
*SARS Associated Coronavirus (ZeptoMetrix)	A	4.03 log <sub>10</sub>	2 minutes
	B	4.03 log <sub>10</sub>	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:

Subculture Media	Sample	No. of Exposed Carriers	No. of 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, 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:

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

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

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## MILDEW FUNGISTATIC DATA:

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

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

**Test Conditions:** glazed ceramic tile substrates

	Sample	No. of Exposed Tiles	No. of Tiles Showing Growth
Results:	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

	Organism	Sample	Exposed	Positive	Contact Time
Results:	<i>Trichophyton mentagrophytes</i> (ATCC 9533)	A	60	10	10 minutes
		B	60	10	10 minutes
		C	60	10	10 minutes

**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.