



ANTIBACTERIAL
HEAVY DUTY CLEANER
AND ODOR COUNTERACTANT

**Efficacy
Data**

EPA Reg. No. 1839-83-44089

TUBERCULOCIDAL ACTIVITY

Test Method: AOAC Confirmative In Vitro Test for Determining Tuberculocidal Activity.

Test Organism: *Mycobacterium Bovis BCG* (Organon Teknika)

Test Conditions: RX 75 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 RX 75 Antibacterial Heavy Duty Cleaner and Odor Counteractant 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.

MILDEW FUNGISTATIC ACTIVITY

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> |
|---------------|-----------------------------|------------------------------------|
| RX 75 | 10 | 0 |
| CONTROL | 10 | 10 |

CONCLUSION: Under the conditions of this investigation, RX 75 Antibacterial Heavy Duty Cleaner and Odor Counteractant 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 ACTIVITY

Test Method: AOAC Germicidal Spray Products as Disinfectants

Test Conditions: RX 75 RTU - organic soil load - room temperature - glass slide carrier substrates

Results:

| <u>Organism</u> | <u>Sample</u> | <u>No. of Carriers</u> | | <u>Contact Time</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, RX 75 Antibacterial Heavy Duty Cleaner and Odor Counteractant was **fungicidal** for *Trichophyton mentagrophytes* (Athlete's Foot Fungus, a cause of ringworm) according to criteria established by the U.S. Environmental Protection Agency for registration and labeling of a disinfectant product as a fungicide.

RX 75 (Continued)

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BACTERICIDAL ACTIVITY**Test Method:** AOAC Germicidal Spray Products as Disinfectants**Test Conditions:** RX 75 RTU - organic soil load - room temperature - glass slide carrier substrates**Results:**

| <u>Organism</u> | <u>Sample</u> | <u>No. of Carriers</u> | | <u>Contact Time</u> |
|---|---------------|------------------------|-----------------|---------------------|
| | | <u>Exposed</u> | <u>Positive</u> | |
| <i>Staphylococcus aureus</i> (ATCC 6538) | A | 60 | 0 | 3 minutes |
| | B | 60 | 0 | |
| <i>Salmonella choleraesuis</i> (ATCC 10708) | A | 60 | 0 | 3 minutes |
| | B | 60 | 0 | |
| <i>Pseudomonas aeruginosa</i> PRD-10 (ATCC 15442) | A | 60 | 0 | 3 minutes |
| | B | 60 | 0 | |
| <i>Corynebacterium ammoniagenes</i> (ATCC 6871) | A | 10 | 0 | 3 minutes |
| | B | 10 | 0 | |
| Community Associated Methicillin Resistant <i>Staphylococcus aureus</i> (CA-MRSA) (NRS 123) Genotype USA400 | A | 10 | 0 | 3 minutes |
| | B | 10 | 0 | |
| Community Associated Methicillin Resistant <i>Staphylococcus aureus</i> (CA-MRSA) (NRS 384) Genotype USA300 | A | 10 | 0 | 3 minutes |
| | B | 10 | 0 | |
| <i>Enterococcus faecium</i> (ATCC 6569) | A | 10 | 0 | 3 minutes |
| | B | 10 | 0 | |
| <i>Escherichia coli</i> (ATCC 11229) | A | 10 | 0 | 3 minutes |
| | B | 10 | 0 | |
| <i>Escherichia coli</i> 0157:H7 (ATCC 43895) | A | 10 | 0 | 3 minutes |
| | B | 10 | 0 | |
| <i>Listeria monocytogenes</i> (ATCC 35152) | A | 10 | 0 | 3 minutes |
| | B | 10 | 0 | |
| <i>Salmonella typhi</i> (ATCC 6839) | A | 10 | 0 | 3 minutes |
| | B | 10 | 0 | |
| <i>Yersinia enterocolitica</i> (ATCC 23715) | A | 10 | 0 | 3 minutes |
| | B | 10 | 0 | |
| <i>Streptococcus pyogenes</i> (Necrotizing Fasciitis-Group A) (VA Medical Center Isolate 04001) | A | 10 | 0 | 3 minutes |
| | B | 10 | 0 | |
| Methicillin resistant <i>Staphylococcus aureus</i> (MRSA) (ATCC 33593) | A | 10 | 0 | 3 minutes |
| | B | 10 | 0 | |
| Methicillin resistant <i>Staphylococcus epidermidis</i> (MRSE) (ATCC 51625) | 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 | |
| Vancomycin intermediate resistant <i>Staphylococcus aureus</i> (VISA) (CDC Isolate 99287) | A | 10 | 0 | 3 minutes |
| | B | 10 | 0 | |

CONCLUSION: Under the conditions of this investigation, RX 75 Antibacterial Heavy Duty Cleaner and Odor Counteractant was **bactericidal** for *Staphylococcus aureus*, *Salmonella choleraesuis*, *Pseudomonas aeruginosa*, *Corynebacterium ammoniagenes*, *Enterococcus faecium*, *Escherichia coli*, *Escherichia coli* 0157:H7, *Streptococcus pyogenes* (VA Medical Center Isolate 04001), *Listeria monocytogenes*, *Salmonella typhi*, *Yersinia enterocolitica*, Methicillin resistant *Staphylococcus aureus* (MRSA), Methicillin resistant *Staphylococcus epidermidis* (MRSE), Vancomycin resistant *Enterococcus faecalis* (VRE), Vancomycin intermediate resistant *Staphylococcus aureus* (VISA), *Streptococcus faecalis* 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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VIRUCIDAL ACTIVITY

Test Method: *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: RX 75 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) (ATCC VR-2072) | A&B | 3.0 log ₁₀ | 2 minutes |
| *Avian Influenza A Virus (H9N2) (Turkey/WIS/66) | A&B | 4.83 log ₁₀ | 2 minutes |
| ‡Bovine Viral Diarrhea Virus (BVDV) | A&B | ≥3.0 log ₁₀ | 5 minutes |
| *Canine Parvovirus (ATCC VR-2017) | A&B | ≥3.0 log ₁₀ | 10 minutes |
| •Feline Calicivirus (FCV) | A&B | 6.48 log ₁₀ | 30 seconds |
| †Hepatitis A Virus (HAV) | A&B | ≥3.0 log ₁₀ | 10 minutes |
| †Hepatitis B Virus (HBV) (Duck Hepatitis B Virus-DHBV) | A&B | ≥3.3 log ₁₀ | 5 minutes |
| ‡Hepatitis C Virus (HCV) (Bovine Viral Diarrhea Virus-BVDV) | A&B | ≥3.0 log ₁₀ | 5 minutes |
| *Human Immunodeficiency Virus, HTLV-III _{RF} , strain of HIV-I (associated with AIDS) | A&B | ≥3.5 log ₁₀ | 1 minute |
| *Human Coronavirus (ATCC VR-740, strain 229E) | A&B | ≥3.0 log ₁₀ | 2 minutes |
| *Norovirus (Norwalk Virus) | A&B | 6.48 log ₁₀ | 30 seconds |
| *Poliovirus Type I, strain Brunhilde (ATCC VR-1000) | A&B | ≥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 | ≥3.0 log ₁₀ | 3 minutes |
| *Rotovirus | A&B | ≥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, RX 75 Antibacterial Heavy Duty Cleaner and Odor Counteractant was **virucidal** for *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-I)*, *Human Coronavirus*, *Norovirus (Norwalk Virus)*, *Poliovirus Type I*, *Rabies Virus*, *Rhinovirus Type 39*, *Rotovirus*, *Avian Influenza A* 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.

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