

EFFECTIVE AGAINST EPA OFFICIAL TEST ORGANISMS FOR USE IN HOSPITALS.

TEST PROCEDURE: Each of three samples were tested in accordance with the AOAC use dilution test, current edition, modified in the presence of 5% organic blood serum against the following bacteria using AIRX 44 HDQ at use dilution of 1:64.

TEST ORGANISM	SAMPLE A			SAMPLE B			SAMPLE C		
	# Carriers	# Of Positives	Neutralization Control	# Carriers	# Of Positives	Neutralization Control	# Carriers	# Of Positives	Neutralization Control
Pseudomonas Aeruginosa	60	0	+	60	0	+	60	0	+
Salmonella Choleraesuis	60	0	+	60	0	+	60	0	+
Staphylococcus Aureus	60	0	+	60	0	+	60	0	+

CONCLUSION: Results from testing demonstrate disinfection against all three official EPA test organisms required for hospital use in the presence of 5% organic blood serum.

EFFECTIVE AGAINST A BROAD RANGE OF PATHOGENIC BACTERIA.

TEST PROCEDURE: Each of two samples were tested in accordance with the AOAC use dilution test, current edition with AIRX 44 HDQ Diluted at 1:64. Each sample was modified in the presence of 5% blood serum.

TEST ORGANISM	# Carriers	SAMPLE A			# Carriers	SAMPLE B		
		# Of Positives	Neutralization Control	# Of Positives		Neutralization Control		
Brevibacterium Ammoniagenes	10	0	+	10	0	+		
Enterobacter Aerogenes	10	0	+	10	0	+		
Escherichia Coli	10	0	+	10	0	+		
Klebsiella Pneumoniae	10	0	+	10	0	+		
Salmonella Schottmuelleri	10	0	+	10	0	+		
Shigella Dysenteriae	10	0	+	10	0	+		
Staphylococcus aureus (Methicillin resistant) (MRSA)	10	0	+	10	0	+		
Staphylococcus aureus (Vancomycin intermediate resistant) (VISA)	10	0	+	10	0	+		
Streptococcus Faecalis	10	0	+	10	0	+		
Streptococcus Salivarius	10	0	+	10	0	+		

CONCLUSION: Results from testing demonstrate disinfection against a wide range of pathogenic bacteria even when used in 5% organic blood serum.



AIRX ULTRA – Efficacy Data

(AIRX44 HDQ)

FUNGISTATIC AGAINST MILDEW

TEST PROCEDURE: Sample was tested in accordance with the Hard Surface Mildew Fungistatic Test (Unofficial Protocol10/27n6) using AIRX 44 HDQ at a dilution of 1:64.

TEST ORGANISM Aspergillus niger	No. of Exposed Tiles 10	No. of Tiles Showing Growth 0	Control 10
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CONCLUSION: Under the conditions of this investigation, AIRX 44 HDQ 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

EFFECTIVE AS A FUNGICIDE

TEST PROCEDURE: Each of two samples were tested in accordance with the AOAC Fungicidal Test in the presence of 5% blood serum using AIRX 44 HDQ at dilution of 1:64.

Results:

		Exposure Time (min) vs. Growth				<u>PHENOL RESISTANCE</u> Exposure Time (min) vs. Growth			
A	1lh1iD.n	5	1D	15	1lh1iD.n	5	1D	15	
	2 ol/gal	+	0	0	1:60	+	0	0	
					1:70	+	+	+	
B	2 ol/gal	+	0	0	1:60	+	0	0	
					1:70	+	+	0	

+ = growth 0 = no growth

CONCLUSION: Under the conditions of this investigation, AIRX 44 HDQ 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.

VIRUCIDAL ACTIVITY

TEST PROCEDURE: *U.S.E.P.A. Pesticide Assessment Guidelines, Subdivision G: Product Performance, 1982, Section 91-30, pp. 72-76. †Virucide Assay (EPA, Federal Register 10, No. 123, 6/25/85, p. 26836)

- 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.

TEST CONDITIONS: 10 minute contact time
glass petri dish substrates
2 oz/gal dilution

Results:

<u>Test Organism</u>		Serum Type	Titer Reduction <u>after 10 min. contact</u>
tAdenovirus Type 2	A	00 calf	>3.0 log
	B	(10%)	>3.0 log
-Hepatitis B Virus (HBV)	A	fetal bovine	4.5 log
(Duck Hepatitis B Virus-DHBV)	B	(5%)	4.5 log
t:Hepatitis C Virus (HCV)	A	horse	6.1 log
(Bovine Viral Diarrhea Virus-BVDV)	B	(5%)	3.8 log
tHerpes Simplex Type 1 (Sa bin)	A	calf	4.0 log
	B	(10%)	3.7log
*Human Immunodeficiency Virus, HTLV-III _{RF} , strain of HIV-1 (associated with AIDS)	A	calf	3.0 log
	B	(5%)	3.0 log
tInfluenza A2 (Japan 305/57)	A	chick extra-embryonic	>6.5 log
	B	protein (100%)	>6.0 log
tVaccinia (Wyeth)	A	calf	>3.5 log
	B	(10%)	>3.5 log

CONCLUSION: Under the conditions of this investigation, AIRX 44 HDQ was virucidal for Adenovirus Type 2, Hepatitis B Virus (HBV), Hepatitis C Virus (HCV), Herpes Simplex Type 1 (Sabin), Human Immunodeficiency Virus (HIV), Influenza A2 (Japan 305/57), and Vaccinia (Wyeth) according to criteria established by the U.S. Environmental Protection Agency for registration and labeling of a disinfectant product as a virucide.