

Antimicrobial Test Laboratories

Fast, Reliable Antimicrobial Efficacy Testing

Microbiology Study Report

Page 1 of 4

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Client Information

Company Name:	<u>Advanced Vapor Technologies</u>	Sponsor:	<u>Rick Hoverson</u>
Sponsor's Phone:	<u>(800) 997-6584</u>	E-mail:	<u>rick@advap.com</u>

Test Information

Test(s) Performed:	<u>Quantitative Technology Comparison for Traditional Liquid Chemical Disinfectants (AVT LT Study #5)</u>		
Study ID #:	<u>PT509</u>	SOP Followed:	<u>ATL SOP C-005</u>
		Performed by:	<u>B. Tanner</u>

Sample Information

Test Substance ID(s):	<u>Lysol I.C. Quaternary Disinfectant</u>	Lot Number:	<u>MA 6223A 09019-OH001</u>
	<u>Clorox Germicidal Bleach</u>		<u>A8717011 5813-CA3</u>
	<u>Waxie "Swish" Disinfectant Cleaner</u>		<u>A6355 0708 251-20</u>

Parameters

Microorganism(s):	<u>Various, see subsequent pages</u>	Type of Carrier:	<u>Unglazed Clay Coupon</u>
Subculture Number:	<u>1 Where Applicable</u>	# of Test Carriers:	<u>12 Tests, 2 Carriers Each</u>
Growth Medium:	<u>Difco Nutrient Broth</u>	Carrier Dry Time:	<u>20 minutes</u>
Contact Time:	<u>0 and 5 seconds</u>	CFU per Carrier:	<u>Various, see subsequent pages</u>
Organic Soil Load:	<u>5% Horse Serum</u>	Incubation Temp.:	<u>35.0 (+/- 1) C</u>
Neutralizer Used:	<u>10 mL D/E Broth</u>	Incubation Time:	<u>24 - 48 hours</u>

Controls

Neutralized:	<u>Yes</u>	Growth Control:	<u>Passed, all organisms</u>
Media Sterility:	<u>Passed, All Control Jars Neg</u>		

Test Results

# of Carriers Positive:	<u>See subsequent pages</u>	Confirmation:	<u>Colony morphology</u>
# of Carriers Negative:	<u>See subsequent pages</u>	Test(s) Valid?:	<u>Yes</u>

Notes: For this test, six microorganisms were tested in duplicate, against 3 traditional disinfectant products with each test plated in duplicate. The disinfectants studied were diluted in ordinary tap water, where applicable, and were prepared for use and used in accordance with label instructions for disinfection, except that all contact times were 5 seconds.

Note: The tables in this report also reference Vaporjet 2400 w/TANCS data from previous studies (AVT LT Studies 1 and 2).

Lab contact information amended 3/31/08.

Tests Completed: 9/1/2007
3000 Joe DiMaggio Blvd.
Suite 32
Round Rock, Texas 78665

Report Sent: 9/4/07
Phone: (512) 310-TEST
E-Mail: info@AntimicrobialTestLabs.com
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Page 2 of 4

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Additional Study Information

<i>Staphylococcus aureus 6538</i>		
	Time/Rep	CFU
lysol	0R1	8,750,000
	0R2	9,200,000
	5R1	840,000
	5R2	1,030,000
clorox	0R1	10,300,000
	0R2	8,300,000
	5R1	3,900
	5R2	1,850
phenolic	0R1	9,900,000
	0R2	9,000,000
	5R1	7,100
	5R2	5,700

<i>Candida albicans 10231</i>		
	Time/Rep	CFU
lysol	0R1	3,500
	0R2	8,500
	5R1	50
	5R2	100
clorox	0R1	2,000
	0R2	3,000
	5R1	200
	5R2	0
phenolic	0R1	1,500
	0R2	3,000
	5R1	0
	5R2	0

<i>Pseudomonas aeruginosa 15442</i>		
	Time/Rep	CFU
lysol	0R1	3,300,000
	0R2	4,300,000
	5R1	38,500
	5R2	72,000
clorox	0R1	2,460,000
	0R2	3,950,000
	5R1	15,500
	5R2	2,000
phenolic	0R1	2,000,000
	0R2	3,450,000
	5R1	50,000
	5R2	105,000

<i>Aspergillus niger 6275</i>		
	Time/Rep	CFU
lysol	0R1	110,000
	0R2	335,000
	5R1	65,000
	5R2	85,000
clorox	0R1	230,000
	0R2	190,000
	5R1	2,600
	5R2	2,400
phenolic	0R1	205,000
	0R2	225,000
	5R1	37,500
	5R2	57,000

<i>Salmonella enterica 10708</i>		
	Time/Rep	CFU
lysol	0R1	115,000
	0R2	130,000
	5R1	550
	5R2	3,250
clorox	0R1	90,000
	0R2	105,000
	5R1	1,300
	5R2	2,800
phenolic	0R1	65,000
	0R2	55,000
	5R1	200
	5R2	1,050

<i>MS2</i>		
	Time/Rep	CFU
lysol	0R1	10,500
	0R2	7,500
	5R1	19,500
	5R2	17,500
clorox	0R1	360,000
	0R2	120,000
	5R1	13,100
	5R2	13,700
phenolic	0R1	220,000
	0R2	140,000
	5R1	32,400
	5R2	24,200

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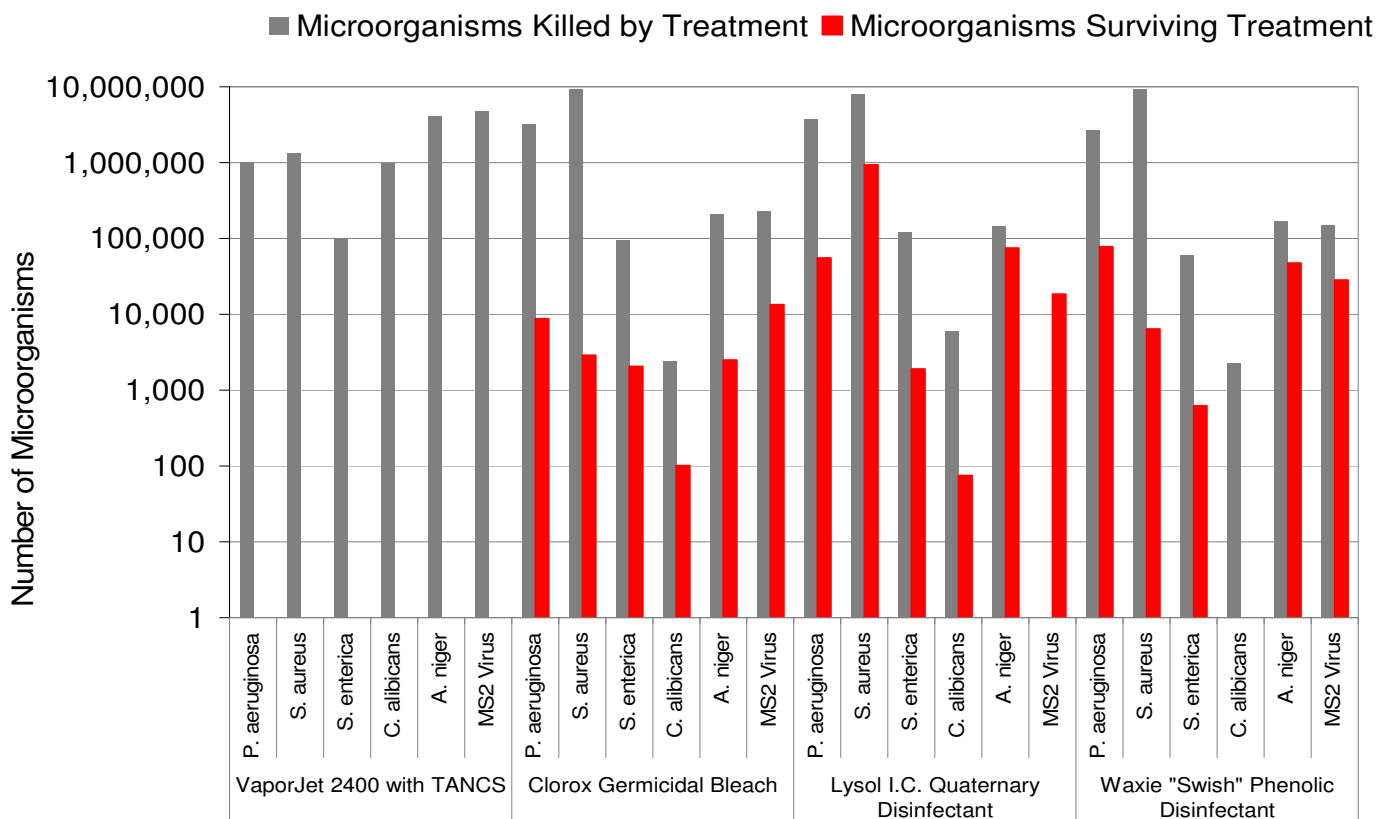
Microbiology Study Report

Page 3 of 4

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Additional Study Information

Killed and Surviving Microorganisms After 5 Seconds of Treatment by Four Different Technologies (Dried Film of Microorganisms on Clay Surface)



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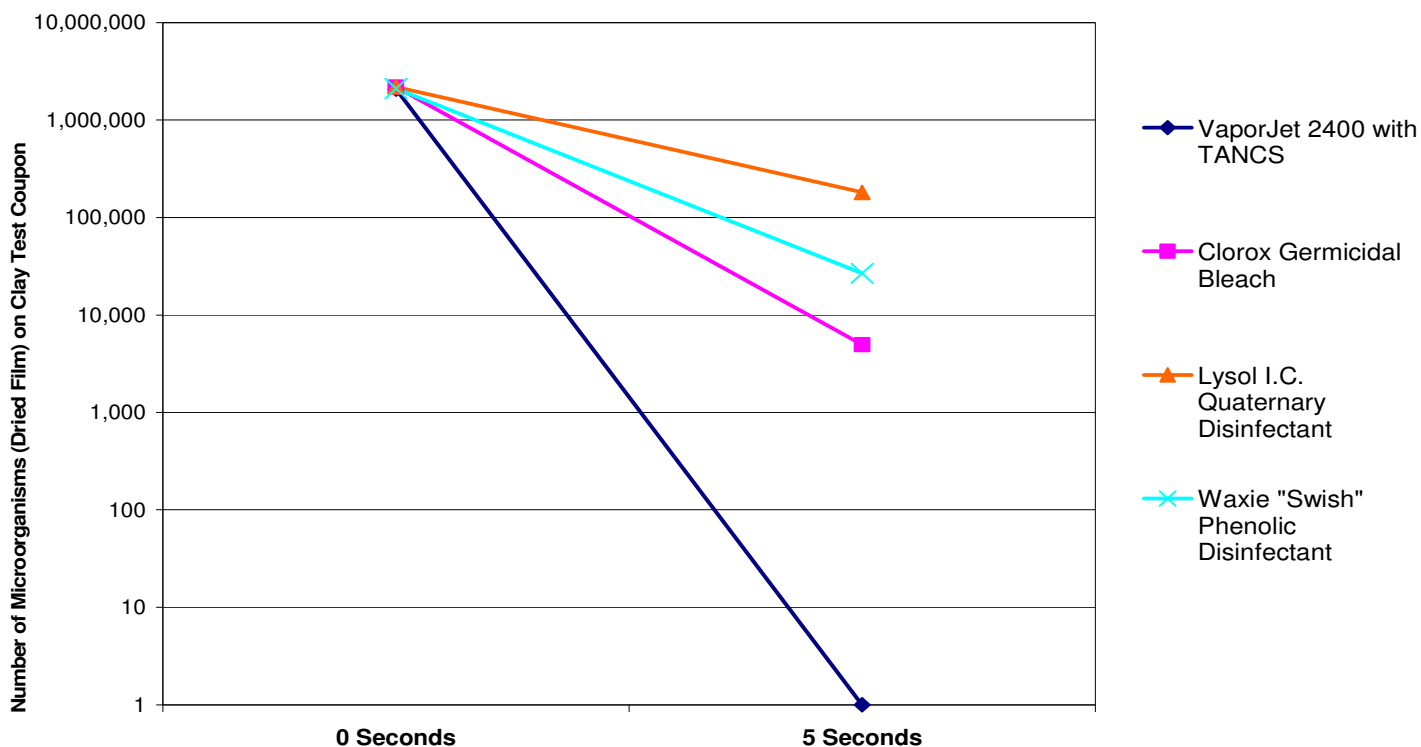
Microbiology Study Report

Page 4 of 4

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Microorganism Levels on Test Surfaces at Zero and Five Seconds Contact*



* Average values from 6 tests, each done in duplicate for each of the 4 listed technologies, against *S. aureus*, *S. enterica*, *P. aeruginosa*, *C. albicans*, *A. niger*, and Bacteriophage MS2, as a dried film of microbes.