

AntimicrobialTestLaboratories LLC

●●●●●● Disinfectant Development Specialists

Microbiology Study Report

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Client Information

Company Name:	<u>Ocusoft</u>	Sponsor:	<u>Pat Witham</u>
Sponsor's Phone:	<u>(888) 424-1192</u>	E-mail:	<u>pwhitham@ocusoft.com</u>

Test Information

Test(s) Performed:	<u>Study of the Antimicrobial Efficacy of Sterilid and Ocusoft Eyelid Cleansers on Skin and In Solution</u>		
SOP Followed:	<u>ATL SOP C-019 and C-018</u>	Performed by:	<u>B. Tanner</u>

Sample Information

Test Substance ID(s):	<u>Ocusoft and Sterilid Eyelid Cleansers</u>	Batch/Lot #:	<u>Ocusoft - 7821</u>
Sample (s) Received:	<u>5/2/2007 and 5/4/07</u>		<u>Sterilid - 0601W</u>

Parameters

Microorganism(s):	<u>See Tables, Below</u>	Exposure Temp.	<u>20-21 C</u>
Subculture Number:	<u>#2 for all organisms</u>	Type of Carrier:	<u>EtOH Sterilized Pig Skin</u>
Growth Medium:	<u>Trypticase Soy Agar</u>	# of Test Carriers:	<u>24</u>
Dilution(s) Tested:	<u>Neat</u>	Carrier Dry Time:	<u>30 minutes</u>
Diluent:	<u>N/A (all serial dilutions in D/E)</u>	CFU per Carrier:	<u>Target 10⁶; See Tables, Below</u>
Contact Time:	<u>0, 1, 60, and 120 minutes</u>	Incubation Temp.:	<u>35.0 (+/- 1) C</u>
Organic Soil Load:	<u>Sterile Horse Serum, 5.0%</u>	Incubation Time:	<u>18 hours</u>
Neutralizer Used:	<u>D/E Neutralizing Broth (10 mL)</u>	Suspension Test Vol.	<u>10 mL</u>

Controls

Neutralized:	<u>Passed, NV Controls (T = 0)</u>	Growth Control:	<u>Passed, all organisms +</u>
Media Sterility:	<u>Passed, All Control Tubes Neg</u>		

Test Results

# of Carriers Positive:	<u>N/A</u>	Confirmation:	<u>Not Performed</u>
# of Carriers Negative:	<u>N/A</u>	Test(s) Valid?:	<u>Yes</u>

Notes: This report covers tests against P. aeruginosa 15442, S. aureus 6538 and E. coli 11229 on pig skin on 5/5/07; MRSA testing on pig skin on 5/13/07, and suspension testing against 7 organisms (listed below) on 5/13/07. Suspension tests were repeated on 5/16/07 for Sterilid vs. E. coli and M. catarrhalis and for Ocusoft vs. M. catarrhalis.

Tests Completed: 5/6, 5/14, and 5/18/07

Report Sent: 5/18/07

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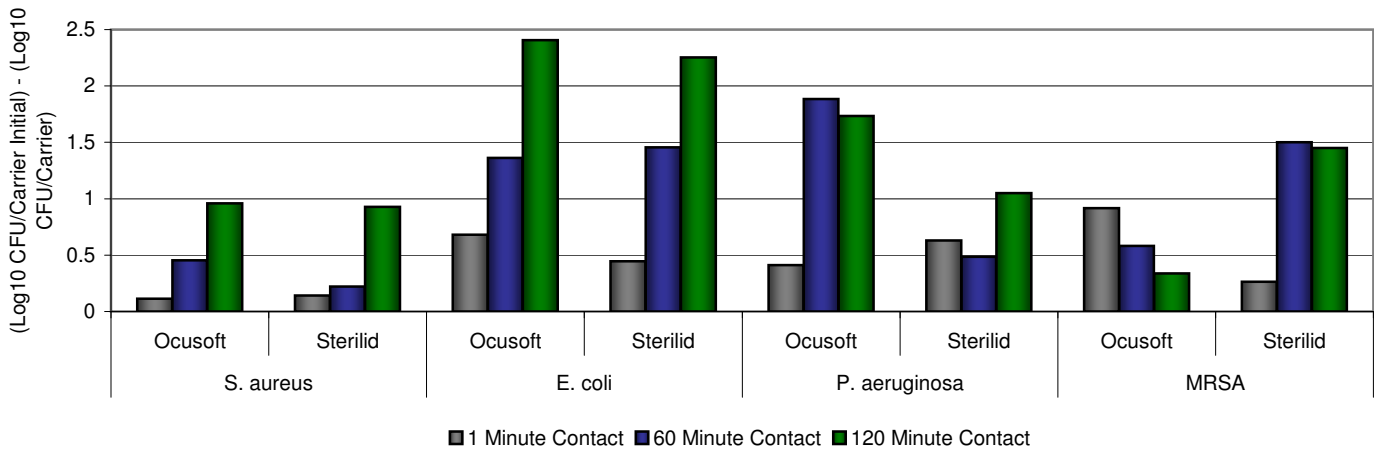
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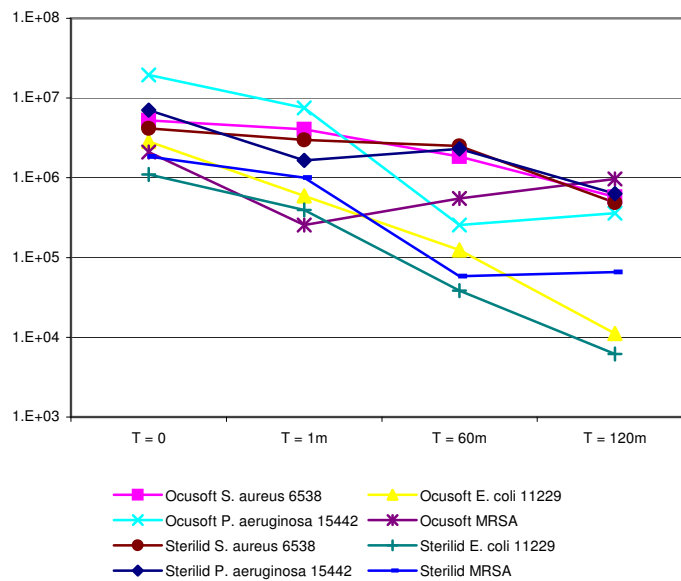
Additional Test Information

TESTING OF EYELID CLEANSERS AGAINST 4 BACTERIA DRIED ONTO PIG SKIN

Log Reduction of Bacteria on Skin Resulting from Application of Eyelid Cleanser



Numbers of Bacteria on Pig Skin Over Time



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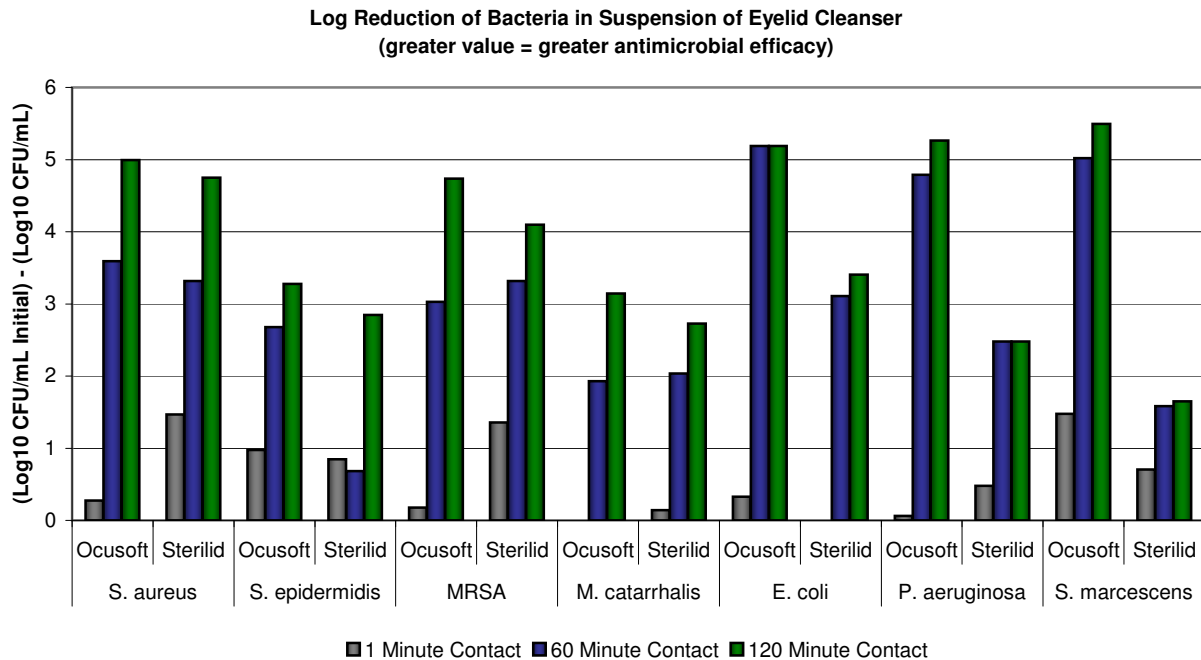
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Additional Test Information

TESTING OF EYELID CLEANSERS AGAINST 4 BACTERIA DRIED ONTO PIG SKIN (DATA)

Product	Microorganism	CFU (Bacteria) per Carrier (1 cm Pig Skin)			
		T = 0	T = 1m	T = 60m	T = 120m
Ocusoft	<i>S. aureus</i> 6538	5.25E+06	4.05E+06	1.85E+06	5.75E+05
	<i>E. coli</i> 11229	2.85E+06	5.95E+05	1.24E+05	1.12E+04
	<i>P. aeruginosa</i> 15442	1.95E+07	7.55E+06	2.55E+05	3.60E+05
	MRSA	2.10E+06	2.55E+05	5.50E+05	9.65E+05
Sterilid	<i>S. aureus</i> 6538	4.15E+06	3.00E+06	2.50E+06	4.90E+05
	<i>E. coli</i> 11229	1.10E+06	3.95E+05	3.85E+04	6.15E+03
	<i>P. aeruginosa</i> 15442	7.05E+06	1.65E+06	2.30E+06	6.30E+05
	MRSA	1.85E+06	1.01E+06	5.85E+04	6.55E+04

TESTING OF EYELID CLEANSERS AGAINST 7 BACTERIA IN SUSPENSION



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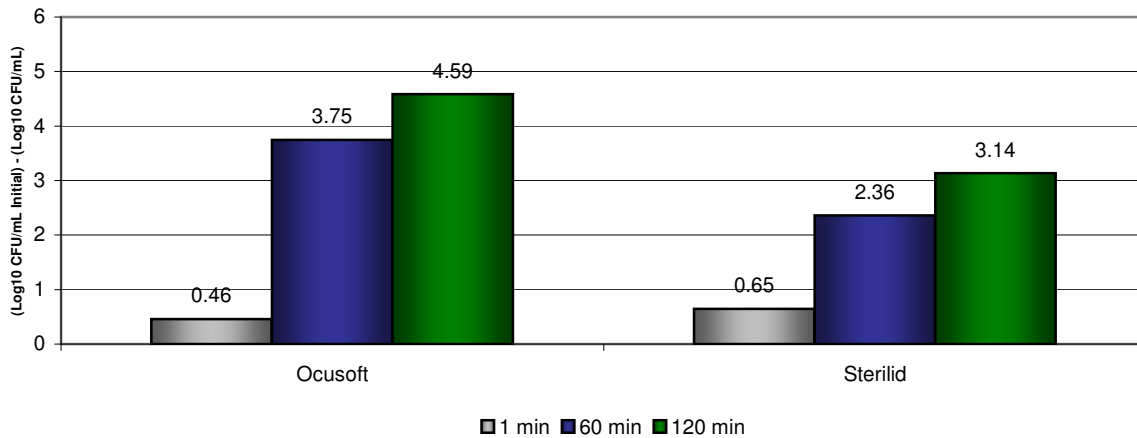
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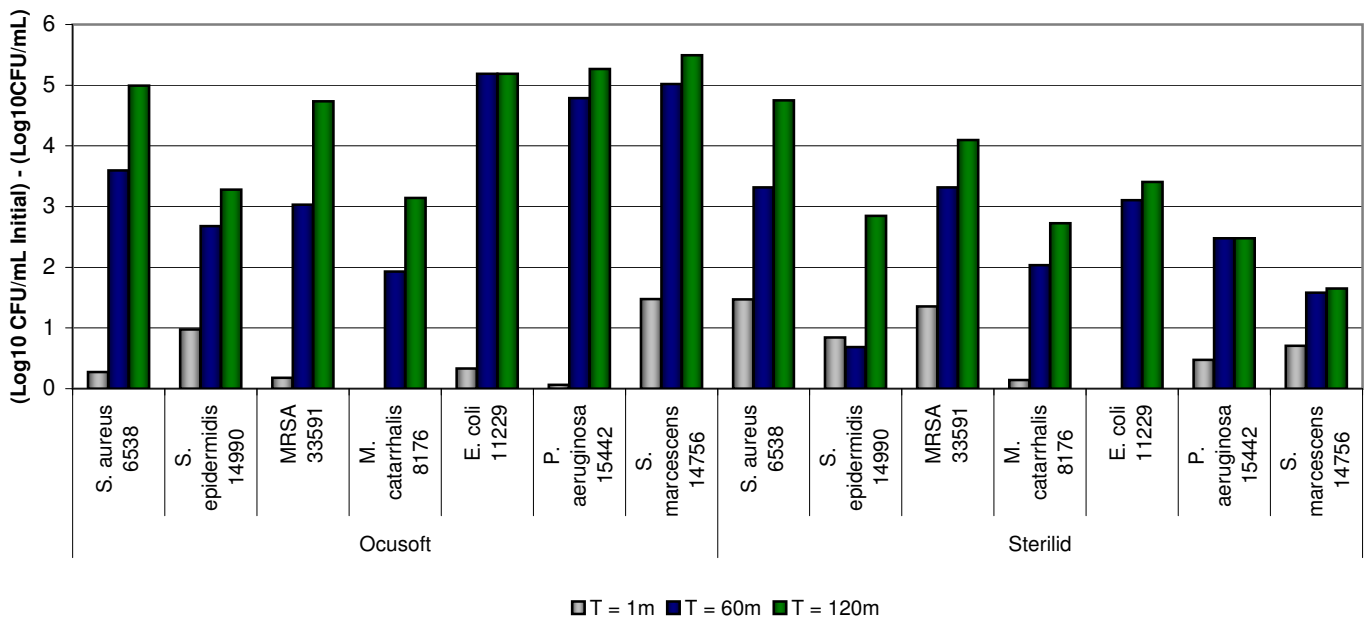
Additional Test Information

TESTING OF EYELID CLEANSERS AGAINST 7 BACTERIA IN SUSPENSION (CONTINUED)

Average Log Reduction of Bacteria in Suspension of Eyelid Cleanser Over Time (Average Reduction of All 7 Species Tested)



Log Reduction of Bacteria in Suspension of Eyelid Cleanser Over Time



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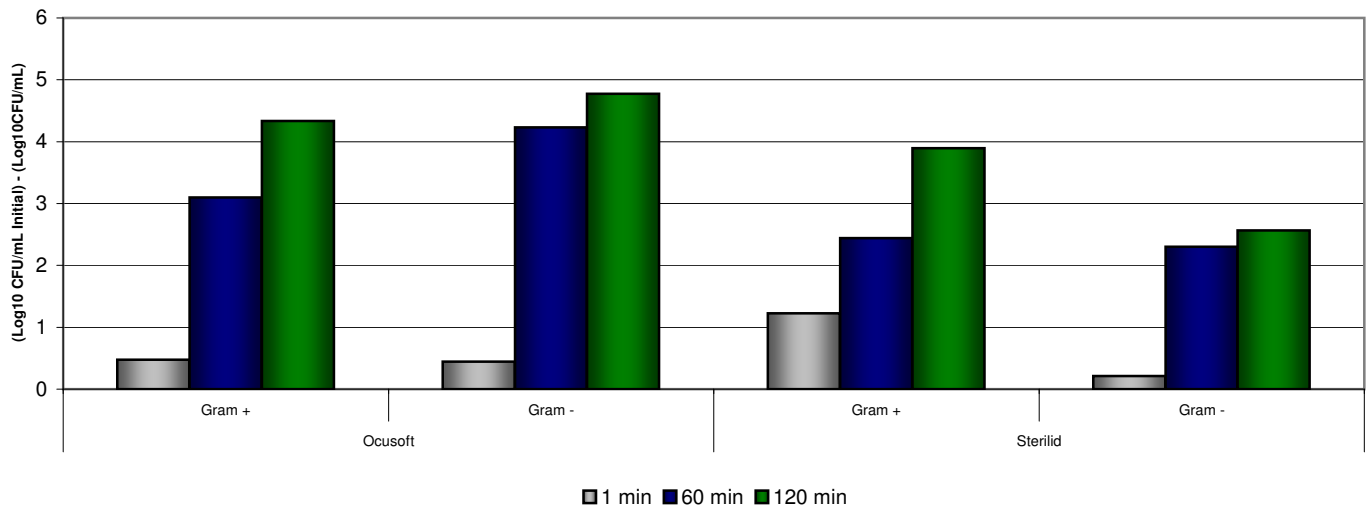
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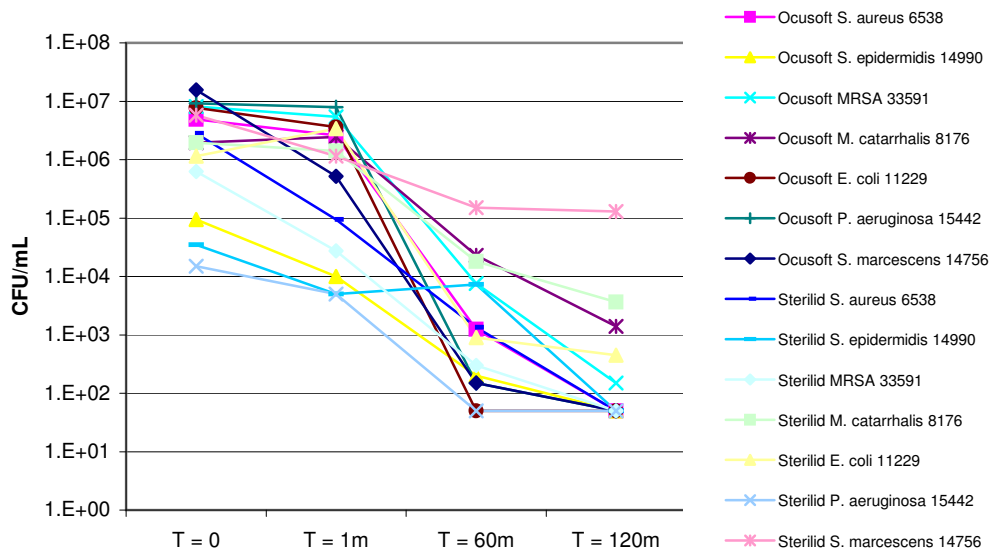
Additional Test Information

TESTING OF EYELID CLEANSERS AGAINST 7 BACTERIA IN SUSPENSION (CONTINUED)

Effect of Ocusoft and Sterlid Eyelid Cleansers on Gram Positive and Gram Negative Bacteria



Numbers of Bacteria in Suspension of Eyelid Cleanser Over Time



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Additional Test Information

TESTING OF EYELID CLEANSERS AGAINST 7 BACTERIA IN SUSPENSION (DATA)

		Counts			
		CFU (Bacteria) per mL Suspension			
Product	Microorganism	T = 0	T = 1m	T = 60m	T = 120m
Ocusoft	<i>S. aureus</i> 6538	4.90E+06	2.60E+06	1.25E+03	5.00E+01
	<i>S. epidermidis</i> 14990	9.50E+04	1.00E+04	2.00E+02	5.00E+01
	MRSA 33591	8.15E+06	5.40E+06	7.60E+03	1.50E+02
	<i>M. catarrhalis</i> 8176	1.95E+06	2.45E+06	2.30E+04	1.40E+03
	<i>E. coli</i> 11229	7.70E+06	3.60E+06	5.00E+01	5.00E+01
	<i>P. aeruginosa</i> 15442	9.20E+06	7.95E+06	1.50E+02	5.00E+01
	<i>S. marcescens</i> 14756	1.57E+07	5.20E+05	1.50E+02	5.00E+01
Sterilid	<i>S. aureus</i> 6538	2.80E+06	9.50E+04	1.35E+03	5.00E+01
	<i>S. epidermidis</i> 14990	3.50E+04	5.00E+03	7.25E+03	5.00E+01
	MRSA 33591	6.25E+05	2.75E+04	3.00E+02	5.00E+01
	<i>M. catarrhalis</i> 8176	1.95E+06	1.40E+06	1.80E+04	3.65E+03
	<i>E. coli</i> 11229	1.15E+06	3.40E+06	9.00E+02	4.50E+02
	<i>P. aeruginosa</i> 15442	1.50E+04	5.00E+03	5.00E+01	5.00E+01
	<i>S. marcescens</i> 14756	5.80E+06	1.15E+06	1.52E+05	1.30E+05

		Log Reductions			
		CFU (Bacteria) per mL Suspension			
Product	Microorganism	T = 0	T = 1m	T = 60m	T = 120m
Ocusoft	<i>S. aureus</i> 6538		0.275223	3.5932861	4.99E+00
	<i>S. epidermidis</i> 14990		0.977724	2.6766936	3.28E+00
	MRSA 33591		0.178764	3.030344	4.74E+00
	<i>M. catarrhalis</i> 8176		-0.099131	1.9283068	3.14E+00
	<i>E. coli</i> 11229		0.330188	5.1875207	5.19E+00
	<i>P. aeruginosa</i> 15442		0.063421	4.7876966	5.26E+00
	<i>S. marcescens</i> 14756		1.478511	5.0184231	5.50E+00
Sterilid	<i>S. aureus</i> 6538		1.469434	3.3168243	4.75E+00
	<i>S. epidermidis</i> 14990		0.845098	0.68373	2.85E+00
	MRSA 33591		1.356547	3.3187588	4.10E+00
	<i>M. catarrhalis</i> 8176		0.143907	2.0347621	2.73E+00
	<i>E. coli</i> 11229		-0.470781	3.1064553	3.41E+00
	<i>P. aeruginosa</i> 15442		0.477121	2.4771213	2.48E+00
	<i>S. marcescens</i> 14756		0.704623	1.5830154	1.65E+00