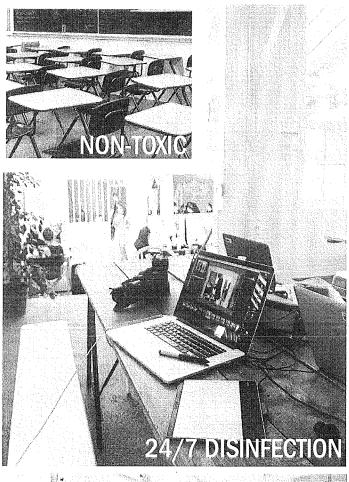
# A cleaned surface only stays disinfected until it's touched.

# We have the solution.







# Protect your surfaces with an antimicrobial shield that lasts between cleanings.

MonoFoil's patented, EPA-approved, non-toxic antimicrobial nanotechnology is effective in killing 70+ strains of viruses, bacteria, mold, fungi and algae.

MonoFoil® creates an undetectable molecularly bonded polymer shield that provides proven sustained antimicrobial protection for 30+days.

MonoFoil  $\mbox{\ensuremath{\mbox{\$}}}$  is non-toxic, environmentally friendly, and hypoallergenic.

MonoFoil® is odorless, colorless and non-leeching.

MonoFoil® is made in the U.S.A.

MonoFoil® is easy to apply, available in various sizes and can be used for small jobs to large industrial needs. Use with bottle sprayer, pressure sprayer or fogging equipment.





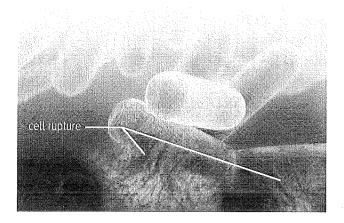




### Stop Community Spread In Its Tracks

Community spread of germs occurs because current disinfectants are only active while the surface is wet. Once the liquid surface dries it quickly becomes re-contaminated upon contact.

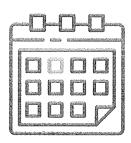
MonoFoil® bonds at a molecular level to surfaces, providing long lasting, durable antimicrobial protection unlike anything currently on the market.



The active ingredient in MonoFoil® forms a colorless, odorless, positively charged polymer barrier that bonds to the applied surface. MonoFoil® is not metabolized by the microbial cells, insteadit creates a network of electrically charged molecules on the surface, which rupture the cell wall on contact.

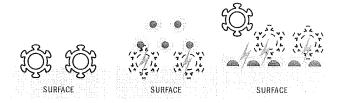
What does that really mean? It like popping a water balloon - it causes instant cellular death! Through this mechanism of action, MonoFoil® does not promote allow the microbe to mutate and the risk the formation of a resistant superbug.

APPLY ROUTINELY FOR LASTING PROTECTION





MonoFoil® creates an invisible electrically charged coating which bonds to the applied surface. MonoFoil® creates a long-lasting protective anti-bacterial shield that prevents new microbial contamination over 30 days.



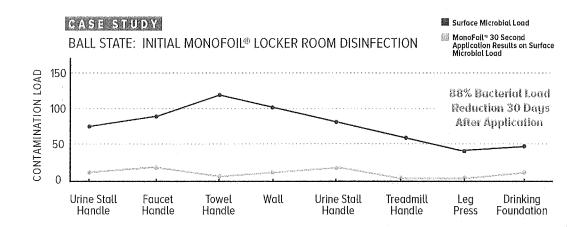


Other disinfectants are designed to pass through the cell wall and attempt to poison the microbe altering the microbe's DNA. This may lead to mutation and resistant superbugs. These disinfectants are temporary and work while the surface is wet. Once surface is dry contamination occurs when the surface is touched again.





MonoFoil® is registered with the US Environmental Protection Agency and has successfully proven safety and antimicrobial disinfection against common community bacteria, viruses, and fungi.



#### BALL STATE: 30 DAY SUSTAINABLE RESULTS

LOCATION	BASELINE	RETEST @ 30 DAY	OVERALL MICROB REDUCTION	AL
Urine Stall Handle	74	0	100%	MCROBIA/
Faucet Handle	85	10	88%	SE MICROBIAL PRE
Towel Handle	107	7	93%	AVE.
Wall	80	0	100%	
Treadmill	50	22	56%	
Leg Press	21	1	96%	
Drinking Fountain	25	7	72%	********

### J. A Karel. *Durability of an Antimicrobial Polymer in Material Applications*. Department of Chemistry and Physics, Anderson University. May 01, 2013.

Results of the Clostridial Reinforced Media testing showed that MonoFoil® solutions are effective in inhibiting the growth of both C. difficile vegetative and endospore cells. Each of the solutions containing the QAC showed no growth after a 48-hour incubation time.



Every year at Marion University Sports Facility we would have reports of athletes with Staph or MRSA cases. Last year we had 10 athletes report with Staph. Since we started using MonoFoil over the past two years we have had zero Staph cases.

- Coach Ted Karas, Marion University (Fox59. July 19, 2017)

### Effective Against

#### VIRUSES

HIV type 1- Strain HTLV IIIB
Herpes Simplex Type 1
Rotavirus
Coronavirus (ATCC VR-740)\*
Influenza A (H1N1)
Swine Influenza A (H1N1)
Adenovirus Type 2
Norovirus
Avian Influenza A
Rhinovirus
Hepatitis B Virus
Hepatitis C Virus

#### BACTERIA

Pseudomonas aeruginosa
Staphylococcus aureus
Salmonella enterica
Listeria monocytogenes
Enterococcus faecium
MRSA Staphylococcus aureus
Community Associated MRSA
Escherichia coli
Acinetobacter baumannii
Campylobacter jejuni
Klebsiella pneumoniae
Klebsiella pneumonia

### FUNGUS

Trichophyton mentagrophytes (Athlete's Foot Fungus)

\*Although all viruses contain similar metabolism, the new Coronovirus/CoVID19 has not been evaluated at the time of this publication.

## Treating Spaces Today To Protect Your People Tomorrow



MONOFOIL® WILL BENEFIT

Airplanes and Cruise Ships

Airports

Casinos



Brands that are protecting community health with Monofoil®



















The MonoFoil® antimicrobial solution can be applied to a variety of surfaces to deliver lasting protection. MonoFoil® is non-toxic and can be applied to multiple areas such as: kitchen & bath surfaces, indoor/outdoor surfaces, plastic, stone and metal surfaces, fabric and carpet.

Everyday protection for high touch surfaces

**Escalators & Elevators** Door Handles Fitness Equipment Floors Gaming Equipment Handraits Indoor Play Sets Sports Equipment Keyboards Kiosks/Exhibits School Desks Toilets, Sinks, Showers Wall Switches Workplace Desks Passenger Seating Patient Exam Tables and more!

MonoFoil® is independently lab tested and EPA registered. The antimicrobial protection is non-toxic, leaves no residue, non-leeching and environmentally friendly,

### COMPARISON OF MONOFOIL® VS. LYSOL VS. BLEACH

r r	COST/ LITER	APPLICATION/ YEAR	# LITERS NEEDED/YEAR	ANNUAL COST	APPLICATION LABOR TIME	APPLICATION LABOR COST PER APPLICATION	ANNUAL COST FOR LABOR	DISINFECTION PROTECTION	VOC
MONOFOIL	\$21.41	12	2.25	\$48.17	10 mins	\$1.84	\$22.08	30-days+	no
LYSOL	\$11.90	365	22,8	\$271.32	10 mins	\$1.84	\$675.25	minutes	yes
BLEACH	\$.68	365	22.8	\$15.58	35 mins	\$6.45	\$2,354.25	minutes	yes

BASED ON 200 TREATED SQFT.

### How much do I need?

WALL-TO-WALL COVERAGE 1 gallon per 1500 sqft,\*

HIGH TOUCH AREAS ONLY 1 quart per 1000 sqft.\*

\*Method of application may cause product needed to vary

### How is MonoFoil® Applied

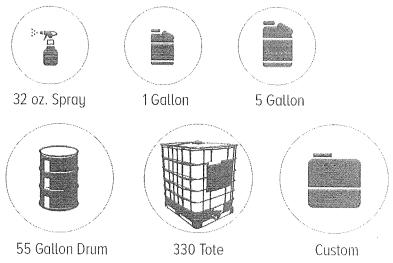
MonoFoil® can be applied via spray bottle, pressurized sprayer, or placed into fogging equipment.

Recommended frequency of use is dependent on the surface being treated and the volume of human contact. It is strongly recommended to be applied at a minimum on a monthly basis.

Apply after normal dusting and dirt removal cleaning. Cleaning products will not remove MonoFoil'® disinfectant barrier.

Please refer to MonoFoil product label for safety and handling information.





Custom product sizes available, Please contact us to inquire. BULK ORDERS AVAILABLE

### MonoFoil® Pro Services

MonoFoil® Pro provides professional MonoFoil® application services for commercial customers. Our program is designed around the client offering customized maintenance programs that will meet the needs of your facility. For more information about our professional application service, please contact us.





# EFFICACY DATA for Product Central 105: Antimicrobial (MonoFoil® 1.3% Solution) VIRUCIDAL DATA:

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.

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, 6/25/75, p. 26836)

: 10 minute contact time, glass petri dish substrates, 18.5-25°C exposure temperature, tested in the presence of serum

Results:

Sample

results.		Sample	iller Re	<u>eauction</u>
Test Organism				
†Adenovirus Type 5	Α	В	≥3.0 log <sub>10</sub>	≥3.3 log <sub>10</sub>
*Avian Influenza	А	В	≥5.5 log <sub>10</sub>	≥5.5 log <sub>10</sub>
A/Turkey/Wisconsin (ATCC			_ 010	510
VR-798)				
‡Bovine Viral Diarrhea	А	В	5,93 log <sub>10</sub>	5.93 log <sub>10</sub>
Virus (BVDV)		, (		
<ul><li>Hepatitis B Virus (HBV)</li><li>(Duck Hepatitis B Virus-</li></ul>	Α	В	4.68 log <sub>10</sub>	4.68 log <sub>10</sub>
DHBV)			De la companya de la	
‡Hepatitis C Virus (HCV)	A	В	5.93 log <sub>10</sub>	5.93 log <sub>10</sub>
(Bovine Viral Diarrhea	, ,		0.30 log <sub>10</sub>	5.95 log <sub>10</sub>
Virus-BVDV)				
†Herpes Simplex Type 1	A **	B	4.0 log <sub>10</sub>	4.0 log <sub>10</sub>
(Sabin)	Marie Ma		7	0 10
*Human Coronavirus	A	B ( )	≥4.25 log <sub>10</sub>	≥4.25 log <sub>10</sub>
(ATCC VR-740, strain 229E)				
*Human Immunodeficiency	Δ	В	≥3.5 log <sub>10</sub>	>2 F log
Virus, HIV-1, strain HTLV-			<u>-</u> 0.5 log <sub>10</sub>	≥3.5 log <sub>10</sub>
B, (associated with AIDS)				
†Influenza A <sub>2</sub> (Japan	A A	В	7.5 log <sub>10</sub>	7.5 log <sub>10</sub>
305/57)	to the second of		310	
*Norovirus	Ä	В	4.75 log <sub>10</sub>	≥4.75 log <sub>10</sub>
*Newcastle Disease Virus	A	B:	≥5.5 log <sub>10</sub>	≥5.5 log <sub>10</sub>
(strain H.J. Roakin, 1946)		_		_0.0 10910
*SARS associated	A	В	4.03 log <sub>10</sub>	4.03 log <sub>10</sub>
Coronavirus (ZeptoMetrix)				
†Vaccinia (Wyeth)	A	В	3.5 log <sub>10</sub>	3.5 log <sub>10</sub>
	1 m			

Conclusion: Under the conditions of this investigation, MONOFOIL® 1.3%Solution was virucidal for Adenovirus Type 5, Avian Influenza A/Turkey/Wisconsin, Bovine Viral Diarrhea Virus (BVDV), Hepatitis B Virus (HBV), Hepatitis C Virus (HCV), Herpes Simplex Type 1 (Sabin), Human Coronavirus, Human Immunodeficiency Virus (HIV-1), Influenza A<sub>2</sub> (Japan 305/57), Laryngotracheitis, Newcastle Disease Virus, SARS associated Coronavirus and Vaccinia (Wyeth) according to criteria established by the U. S. Environ-mental Protection Agency for registration and labeling of a disinfectant product as a virucide.



#### SANITIZATION DATA:

Test Method: AOAC Germicidal and Detergent Sanitizing Action of Disinfectants Test Conditions: synthetic hard water as 650 ppm hardness (as CaCO<sub>2</sub>)

Results:

TOTAL BACTERIAL COUNTS/
% KILL vs. EXPOSURE TIME

	######################################		% KILL VS.	EXPOSURE TIM		· · · · · · · · · · · · · · · · · · ·
	30 seconds			60 seconds	Initial	Inoculum
<u>Organism</u>	<u>Sample</u>	TBC*	<u>% Kill</u> †	<u>TBC</u> *	<u>% Kill</u> †	Control Count
Staphylococcus	Α	970	99.999	105	99.999	$7.8 \times 10^{7}$
aureus	В	1285	99.999	205	99.999	9.2 x 10 <sup>7</sup>
(ATCC 6538)	С	1145	99,999	130	99.999	9.3 x 10 <sup>7</sup>
English of the control	Δ	4.40	00.000	<b></b>		
Escherichia coli	A	1125	99.999	50 05	99.999	$1.0 \times 10^{8}_{7}$
(ATCC 11229)	B C	1075 835	99.999	95 75	99.999	9.3 x 10 <sup>′</sup>
	C	833	99.999	75	99.999	$8.1 \times 10^{7}$
Campylobacter	Α	790	99.999	410	99.999	$8.6 \times 10^{7}$
jejuni	В	780	99.999	470	99.999	0.0 x 10
(ATCC 29428)				Ŷ		8.6 x 10 <sup>′</sup>
Escherichia coli	Α	1220	99.999	110	99.999	9.2 x 10 <sup>7</sup>
O157:H7	В	1000	99.999	125	99.999	9.2 x 10 <sup>7</sup>
(ATCC 43895)						0.2 X 10
Listeria.	Α	<10	>99.999	<10 </td <td>&gt;99.999</td> <td>7.8 x 10<sup>8</sup></td>	>99.999	7.8 x 10 <sup>8</sup>
monocytogenes	В	<10	>99.999	<10	>99.999	7.8 x 10 <sup>8</sup>
(ATCC 35152)		\$ C.				
Methicillin resistant		950	99.999	<10	>99.999	1.0 x 10 <sup>8</sup>
Staphylococcus	В	970	99.999	<10	>99.999	1.0 x 10 <sup>8</sup>
aureus (ATCC						
33592)	.0					
Salmonella typhi	A «	<b>/</b> <10	>99.999	<10	>99.999	1.4 x 10 <sup>8</sup>
(ATCC 6539)	В	<10	>99.999	<10	>99.999	1.4 x 10 <sup>8</sup>
Shigella sonnei	A. N.	680	99.999	<10	>99.999	9.3 x 10 <sup>7</sup>
(ATCC 11060)	B	4500	99,999	<10	>99.999	$9.3 \times 10^{7}$
\/		<10	00,000	440	. 00 000	
Vancomycin resistant	B	<10	>99.999	<10	>99.999	1.2 x 10 <sup>8</sup>
Enterococcus	В	<10	>99.999	<10	>99.999	1.2 x 10°
faecalis (ATCC			*			
51299)						
Vibrio cholera	Δ )	<10	>99.999	<10	>99.999	2.2.4.27
(ATCC 14035)	B	<10	>99.999	<10	>99.999	8.3 x 10 <sup>′</sup>
,						8.3 x 10 <sup>7</sup>
Yersinia	A	108	99.999	<10	>99.999	1.7 x 10 <sup>8</sup>
enterocolitica	В	1300	99.999	263	99.999	5.9 x 10 <sup>8</sup>
(ATCC 23715)	***					·· · •

<sup>\*</sup>TBC = Total Bacterial Count, organisms/ml

Kill calculation based on Initial Inoculum Control Count.

Conclusion: Under the conditions of these investigations, MONOFOIL® 1.3% Solution demonstrated sanitizing activity against Staphylococcus aureus, Escherichia coli, Campylobacter jejuni, Escherichia coli O157:H7, Listeria monocytogenes, Methicillin resistant Staphylococcus aureus, Salmonella typhi, Shigella sonnei, Vancomycin resistant Enterococcus faecalis, Vibrio cholera and Yersinia enterocolitica according to criteria established by the U. S. Environmental Protection Agency



### **SANITIZATION DATA (continued):**

**Test Method:** AOAC Germicidal and Detergent Sanitizing Action of Disinfectants **Test Conditions:** synthetic hard water as **650 ppm** hardness (as CaCO<sub>2</sub>)

Results:

TOTAL BACTERIAL COUNTS/ % KILL vs. EXPOSURE TIME

	30 seconds			60 seconds	Initial Inoc	:ulum
<u>Organism</u>	<u>Sample</u>	TBC*	<u>% Kill</u> †	TBC*	% Kill† Co	ntrol Count
Klebsiella	Α	100	99.999	<10	>99.999	9.4 x 10 <sup>8</sup>
pneumoniae (ATCC	В	310	99.999	<10	>00 000°	9.4 x 10 <sup>8</sup>
4352)		`		and the second	Autora (Inc.)	5.4 X 10

<sup>\*</sup>TBC = Total Bacterial Count, organisms/ml

**Conclusion:** Under the conditions of these investigations, MONOFOIL® 1:3% Solution demonstrated **sanitizing** activity against *Klebsiella pneumonia* at 300 ppm quaternary concentration and 650 ppm water hardness according to criteria established by the U. S. Environmental Protection Agency for registration and labeling of a disinfectant product as a sanitizer.

Test Method: AOAC Germicidal and Detergent Sanitizing Action of Disinfectants Test Conditions: synthetic hard water as 500 ppm hardness (as CaCO<sub>2</sub>)

#### Results:

\*\*TOTAL BACTERIAL COUNTS/
% KILL vs. EXPOSURE TIME

	40. N. T. T.	17 m	/0 / KILL # 0	LA COURT INVIE		
į į	30 seconds	1. J.		60 seconds	Initia	ıl Inoculum
<u>Organism</u>	<u>Sample</u>	TBC*	<u>% Kill</u> †	TBC*	<u>% Kill</u> †	Control Count
Klebsiella	A	340	99.999	<10	>99.999	1.1 x 10 <sup>8</sup>
pneumoniae (ATCC	∖B /	190	99.999	<10	>99.999	1.1 x 10 <sup>8</sup>
4352)		J.				1.1 X 10

<sup>\*</sup>TBC = Total Bacterial Count, organisms/ml

**Conclusion:** Under the conditions of these investigations, MONOFOIL® 1.3% Solution demonstrated **sanitizing** activity against *Klebsiella pneumoniae* at 200 ppm quaternary concentration and 500 ppm water hardness according to criteria established by the U. S. Environmental Protection Agency for registration and labeling of a disinfectant product as a sanitizer.

<sup>6</sup> Kill calculation based on Initial Inoculum Control Count.

<sup>6</sup> Kill calculation based on Initial Inoculum Control Count.



#### **DISINFECTION DATA:**

Test Method: AOAC Use Dilution

Test Conditions: 5% organic soil load, 10 minute contact time, stainless steel carrier substrates

20°C exposure temperature

Results:

		Number of Carriers		
<u>Test Organism</u>	<u>Dilution</u>	<u>Sample</u>	Exposed	<u>Positive</u>
Staphylococcus aureus	3 ounces/1 gallons	Α	60	0
(ATCC 6538)		В	60	. 0
Salmonella enterica (ATCC	3 ounces/1 gallons	Α	60	
10708)		В	60	0
Listeria monocytogenes	3 ounces/1 gallons	Α	10	0
(ATCC 35152)		В	10	0
Yersinia enterocolitica	3 ounces/1 gallons	Α	10,	0
(ATCC 23715)		В	10	0
Pseudomonas aeruginosa	3.5 ounces/1 gallons	Α 🦯	60	0
(ATCC 15442)		B B	60	0
Staphylococcus aureus	3.5 ounces/1 gallons	A	10	0
(Vancomycin intermediate	A.	B , C	10	0
resistant) (VISA) (HIP-			the sight	
5836)			**	
Xanthomonas axonopodis	2.67 ounces/1 gallon	A	10	0
. (pathovar <i>citri</i> )		B	10	0
(Citrus Canker) (USDA				
Permit No. 46190)		A Comment of the Comm		

Under the conditions of these investigations, MONOFOL® 1.3% Solution demonstrated **disinfectant** activity against Staphylococcus aureus, Salmonella enterica, Listeria monocytogenes, Yersinia enterocolitica, Pseudo-monas aeruginosa, Staphylococcus aureus (Vancomycin intermediate resistant) (VISA), and Xanthomonas axonopodis pathovar citri (citrus canker) according to criteria established by the U. S. Environmental Protection Agency for registration and labeling of a disinfectant product as a bactericide.

The testing data is provided for informational use as to the effectiveness of the MonoFoil Antimicrobial product. The provided information does not reflect actual EPA label claims and makes no claims above and beyond the master label.



# MonoFoil Antimicrobial

Comprehensive Product Testing Report

### **About the Company**

MonoFoil USA, LLC (MUSA) is an innovative manufacturing, R&D based in Indiana. We produce several unique and cutting-edge product technologies for the public transportation, janitorial, hygiene and biological surface protectors, home and business cleaning supplies, and auto care industries. MUSA is currently working with these industries to offer proactive protection from bacteria, mold, and other microbes for both porous and non-porous surfaces.

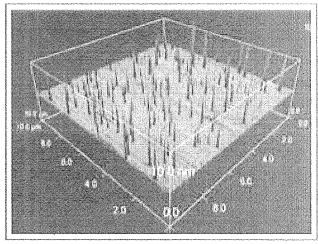
### MonoFoil Microbiostatic Antimicrobial Coating

### The Product

MUSA is pleased to introduce MonoFoil, a patented and Environmental Protection Agency (EPA) registered products. MUSA's Microbiostatic Antimicrobial Coating prevents the growth of a wide array of bacteria, mold, mildew, algae, and yeast. MonoFoil acts like a bed of micro-scopic spikes that pierce the cell walls of microbes offer-ing a totally new approach to providing long-lasting an-timicrobial protection.

### **How it Works**

One end of the Monoil molecule creates a strong bond with a multitude of surfaces, both porous and non-porous, forming a highly durable protective coating. The



Overhead view of MonoFoil spikes (image ©2010 IDA)

other end of the molecule forms a microscopic bed of spikes that puncture microbes like a bed of nails. The MonoFoil Microbiostatic Antimicrobial Coating physically ruptures the cell walls of these microbes, with-out the use of poisons. Since the MonoFoil Microbiostatic Antimicrobial Coating methodology is mechanical instead of a poison, it does not create "super-bugs," which are microbes that build up a resistance to treatment.

Many years of research and development went in to the creation of the MonoFoil Microbiostatic Antimicrobial Coating. The technology has undergone extensive independent laboratory testing and has a long history of safe use. It is registered with the EPA for all applications in which it is used.

### Independent Lab Testing

Recently, MUSA was asked by the largest hospital environmental services company in the United States to verify the performance of our product in a hospital setting. Independent laboratory tests were ordered to confirm approved EPA claims (87538-2). The testing was performed by two different labs at three locations across the country selected by the hospital environmental services company.

Microbac Laboratories, Inc., an independent facility, conducted the testing for Hospital 1, located in Louisville, Kentucky, and Hospital 2, located in Columbus, Ohio. Chestnut Labs, also an independent facility, with offices in Springfield, Missouri, conducted the testing for Hospital 3, located in Joplin, Missouri. Two to three areas in each hospital including public areas such as the emergency room waiting area and inpatient rooms were evaluated with three to 19 points selected in each room. Swab tests were performed every 15 days over a three-month period in 2010. Each test was monitored by the environmental supervisor of the facility being tested. The swabs were categorized, put on ice and taken to the independent labs to determine the results.

### The Hospitals

Hospital 1 is a teaching hospital located near downtown Louisville, Kentucky. The hospital's emergency room is one of the largest trauma facilities in the country and is able to accommodate up to 86 patients simultaneously. The center is staffed 24-hours a day and admits more than 2,400 patients each year; 40 percent of those are referred from other hospitals throughout the region. No patient numbers were readily available for the inpatient facilities.

As one of the largest and most comprehensive pediatric hospitals and research institutes in the United States, Hospital 2 is home to the department of pediatrics for a local university medical school. In a typical year, the hospital sees patients from across the country and around the world. Hospital 2 is located in Columbus, Ohio and maintains a medical staff of approximately 950, a hospital staff of 6,800, and delivers pediatric care for almost 823,000 patient visits annually.

Hospital 3, located in Joplin, Missouri, is also a teaching hospital and features a 404-bed, three-hospital system, which includes a comprehensive behavioral health center. The facility has recently completed a \$47 million expansion project. Hospital 3 is a member of the Oklahoma Osteopathic Medical Consortium of Oklahoma and the regional Osteopathic Postdoctoral Training Institution and an affiliate of Oklahoma State University-College of Medicine.

### The Results - Hospital 1

As demonstrated on the following certified reports from Microbac Laboratories, a significant decrease in microbes in all areas treated and tested at Hospital 1 was found. In fact, the average decrease in harmful bacteria and microbes for the three rooms treated and tested at Hospital 1 was 97.85 percent!



# Microbac Laboratories, Inc. Kentucky Testing Laboratory Division 3323 Oilmore Industrial Boulevard Louisville, KY 40213 502/962-6409 Fas: 502/962-6411



	Louisv	ille, Kentuaky	Treated A	oom, Emer	gency Room	i Waiting Ar	ea	
Sample Number	Sample Description	Baseline 1/26/2010	Follow-up 2/10/2010	Follow-up 3/1/2010	Fellow-up. 3/15/2010	Fellow-up 4/5/2010	Foliow-up 4/22/2010	Follow-up 5/12/2010
001	ER Chair 1, Arms / Seat	980	30	70	<10	<10	80	<10
001 002	ER Chair 2, Fabire Only	2500	10	380 (1)	47000 (2)	41600	50	90
003	Soda Machine, Keypad	290	<10	30	36000 (2)	50	10	<10
004								
005								
006		· · · · · · · · · · · · · · · · · · ·						
007								
800								
009								
010								
011			,					
012								-1
013								
014				1	<u> </u>	1		1

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE

(1) Upon arrival patient was sitting in chair

(2) ER Waiting Area very active



Kennalh W. Ford, Directo

The results shown to the left from the Emergency Room Waiting Area of Hospital 1 show a significant decrease in microbes when compared to the baseline sample. Swab tests were conducted every 15 days from January 2010 to May 2010 on three surfaces including two chairs and the vending machine keypad. The total decrease in microbes from the baseline test to the last follow-up test for this room was 97.13 percent.



# Microbac Laboratories, Inc. Rentucky Testing Laboratory Division 3323 Gilmare Industrial Boulevard Louisville, KY 40213

502/962-6400 Pax: 502/962-6411



Sample Number	Sample Description	Baseline 1/26/2010	Folkow-up 2/10/2010	Follow-up 3/1/2010	Fallow-up 3/15/2010	Follow-up 4/5/2010	Follow-up 4/22/2010	Follow-up 5/12/2010
001	TV Remote	990	10	10	10	380	340	1()
002	Middle Wall Panel	1600	10	<10	<10	<10	10	10
003	Anns Rest of Chair	270	10	<10	<10	<10	40	(1)
004	Blood Pressure Bulb	130	20	<10	30	<10	40	<10
005	Night Light Switch	100	<10	1Ŏ	<10	<10	20	<10
006	Counter Under Lip	70	<10	30	<10	<10	<10	<10
007	Drawer Handles	70	<10	<10	<10	<10	20	<10
008	Themiometer Blue Tip	60	<10	<10	<10	<10	50	(2)
009								
010								
011				TO CHOICE CONTRACTOR C			ACTIVITIES OF THE PROPERTY OF	
012					************			
013								
014		ľ						

(1) Chair not present in foom

(2) Thermometer not present in room

Kanadi W. Foll

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE

Kenneth W. Ford, Director

The results shown to the left from Room 4 on the 5th Floor of Hospital 1 also show a significant decline in microbes when compared to the baseline sample. Swab tests were conducted every 15 days from January 2010 to May 2010 on eight surfaces including the television remote, chair, blood pressure bulb, switch for the night light, drawer handles, thermometer, one wall panel, and underside of the counter lip. The decrease in microbes for this room was an astounding 99.95 percent!



## Microbac Laboratories, Inc. Kentucky Testing Laboratory Division 3323 Gilmore Industrial Boulevard Louisville, KY 40213



001         Chair Fabric         160000         260         2100 (1)         1000         NA         (2)         NA           002         Handrali Bed         2900         460         20         650         NA         < <10           003         TV Fienrote         1400         250         30         900         120         10           004         Bed Tray         980         240         NA         IVA         NA         NA           005         IV Pote Standing         690         20         <10         770         NA         NA           006         IV Pote Cesting Mount         490         <10         <10         560         <10         <10           007         Bed Centrols         410         <10         <10         <10         NA         <10           008         Door Handle Gutside         140         <10         <10         <10         10         10           009         Monitor Controls Frame         60         <10         <10         60         <10         <10         <10           010         Door Frame         90         10         <10         <0         <10         <10         <10         <10	Sample Number	Sample Description	Baseline 1/26/2010	Follow-up 2/10/2010	Follow-up 3/1/2010	Fallow-up 3/15/2010	Fallaw-up 4/5/2010	Follow-up 4/22/2010	Fallow-up 5/12/2010
002         Handrail Bed         2900         450         20         650         NA         < 10	001	Chair Fabric	160000	260	2100 (1)	1000	NA	(2)	NA
004         Bed Tray         980         240         NA         10 <t< td=""><td></td><td>Handreil Bed</td><td>2900</td><td>450</td><td>20</td><td>650</td><td>NA</td><td></td><td>&lt;10</td></t<>		Handreil Bed	2900	450	20	650	NA		<10
004         Sed Tray         980         240         NA         NA         NA         NA           005         IV Pote Standing         690         20         <10	003	TV Flemote	1400	250	30	900	120		10
005         IV Pota Standing         690         20         <10         770         NA         NA           008         IV Pota Cesting Mount         490         <10		Bed Tray	980	240	NA	API	NA:		
007         Bed Controls         4 10         <10         <10         <10         NA         <10           908         Door Handle Cytiside         149         <10		IV Pota Standing	690	20	<10	770	NA		MA
007         Bed Controls         4 10         <10         <10         <10         NA         <10           008         Door Handle Quiside         149         <10	009	IV Pole Cesing Mount	490	<10	<10	560	<10		<10
009 Monitor Controls France 60 <10 <10 60 <10 10 00 10 00 00 €10 €10 €10 €10 €10 €1		Bed Controls	410	<10	<10	<b>₹10</b>	NA		cio
009         Monitor Controls Frame         60         <10         <10         60         <10         10           010         Drawer handles         570         10         <10	008	Door Handle Quiside	140	<10	<10	<10	10		10
011 Door Frame 90 10 <10 <10 <10 10		Monitor Controls Frame	60	<10	≈10	60	<t0< td=""><td></td><td>10</td></t0<>		10
011 Door Frame 90 10 <10 <10 ▼ 10	010	Drawer handles	570	10	<10	60	<10		<10
012		Door Frame	90	10	<10	<10	<10	*	
	012								
	014								

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE

(1) Chair occupied upon arrival

(2) Room not available due to hospital emergency

Kennel W. J. J.

Kenneth W. Ford Director

The results shown to the left from Room 9 on the 9th Floor of Hospital 1 continue to show a significant decrease in microbes when compared to the baseline sample. Swab tests were conducted every 15 days from January 2010 to May 2010 on 11 surfaces including the TV remote, chair, drawer handles, bed handrail, controls and tray, IV equipment, outside door handle and frame as well as the frame for the monitor controls. The decrease in microbes for this room was 96.47 percent.

Room	Baseline	Last Follow-Up	Total % Decrease
Emergency Room Waiting Area	3770	108	97.13%
Floor 5, Room 4	3290	116	96.47%
Floor 9, Room 9	167730	76	99.95%

The chart above outlines the data for the baseline and final follow-up testing as well as the total percentage of decrease in microbes for each room tested in Hospital 1.

### The Results - Hospital 2

As demonstrated on the following certified reports from Microbac Laboratories, a significant decrease in microbes in all areas treated and tested at Hospital 2 was found. The average decrease in harmful bacteria and microbes for the two rooms treated and tested at Hospital 2 was 68.44 percent. This result is lower than generally found in Hospitals 1 and 3. The difference is explained by the notes on the Microbac Laboratories results certificate. Microbac determined the baseline data presented by the previous laboratory was invalid due to poor quality standards. Therefore, calculations for percentage of decrease were completed using the data from the first follow-up rather than the baseline.



# Microbac Laboratories, Inc. Kentucky Testing Luboratory Division 3323 Gilmore Industrial Bonlevard Louisville, KY 40213 502/962-6400 Fax: 502/962-6411



Sample Number	Sample Description	Baseline 1/26/2010	Fellow-up 2/10/2010	Follow-up 3/1/2010	Follow-up 3/15/2010	Folloyy-up 4/5/2010	Follow-up 4/22/2010	Follow-up 5/12/2010
001	Sink handle	7 # 6	200	4000	60	<10	<10	<10
002	Telephone	***************************************	<10	<10	7Q	<10	<10	<10
003	Wall by Towel Dispenser		<10	10	<10	<10	<10	<10
004	Drawet handles		20	<10	<10	<10	<10	20
005	Chair		<10	30	1200	<10	(1)	10
005	Entry Door Handle Outside		<10	<10	<10	<10	20	<10
007	Sink Drain		30	3400	4400	<10	<10	<10
008	Light switch		<10	50	<10	<10	<10	<10
009	Santitizet Housing by Sink		30	<10	10	<10	<10	<10
010	Black Spotlight Handles		<10	<10	<10	<10	<10	<1∅
013	VCR / Radio / CD Controls		<10	<b>≺10</b>	30	<10	<10	<10
012	Thermostat		90	10	150	<10	(2)	10
013	Bottom of Towel Dispenser		s 10	<10	<10	<10	<10	<10
014	Ocor Frame	A A	<10	<10	380	<10	<10	<10
015	Wall Area at Bottom of Bed		30	10	<10	<1Q	40	<10
016	[V Remote		<10	<10	50	<10	10	<10
017	Nurses Call Button on Wall		<10	10	<10	<10	60	10

<sup>\*\*\*</sup> All baseline testing invalidated due to previous labs quality control. Use Control room A6633

(2) Theumostal not accessible due to patient positioning

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Kennet W. July Kenneth W. Ford, Director switch, VCR/Radio/CD controls, door frame, television remote, and the nurse call button. The percentage of decrease in microbes from the first follow-up to the last follow-up test was 66.53 percent.

The results shown to the left from

Room 4009 at Hospital 2 show a significant decrease in microbes. Swab tests were conducted every 15 days from January 2010 to May 2010 on 17 surfaces including the sink handle and drain, telephone, walls, drawer handles, chair, light



### Microbac Laboratories, Inc. Kentucky Testing Laboratory Division 3323 Oilmore Industrial Boulevard Consaville, KY 40213

502/962-6400 Fax: 502/962-6411



Semple Number	Sample Description	Baseline 1/26/2010	Follow-up 2/10/2010	Foliaw up 3/1/2010	Follow-up 3/15/2010	Follow up 4/5/2010	Follow-up 4/22/2010	Follow-up 5/12/2010
ÓB1	Door handle	111	<10	<10	<10	<10	20	<10
002	Sink handle		<10	<10	<10	~10	10	<10
003	Drawer handles		50	<10	<10	<10:	50	<10
004	Light switch by sink		<10	<10	<10	<10	<10	<10
005	Phone		20	<10	30	<10	<10	180
006	TV Remote		<10	≈10	10	<10	<10	10
097	Countertop		10	10	<10	<10	<10	<10
006	Toilel handle		790	850	470	3.000	<1€	<10
009	Chair		30	√10	20	<10	<10	≼10
010	Sanitizer housing		<10	<10	<10	<10	<10	<.10
013	Sink drain		20	<10	4,200	1.900	<10	<10
012	Wall lowel dispenser		<10	<10	<10	<10	<10	<10
013 014								

\*\*\* All baseline testing invalidated due to previous labs quality control. Use Control room A6683. for baseline compansons

Kanad W Jol Kenneth W. Ford, Director The results shown to the left from Room 4029 at Hospital 2 show a significant decrease in microbes. Swab tests were conducted every 15 days from January 2010 to May 2010 on 14 surfaces including the sink handle and drain, door handles. light switch, phone, toilet handle, television remote, chair, drawer handles, countertop and wall towel dispenser. The percentage of decrease in microbes from the first follow-up to the last follow-up test was 70.34 percent.

for baseline comparisons

<sup>(1)</sup> Chair removed from room

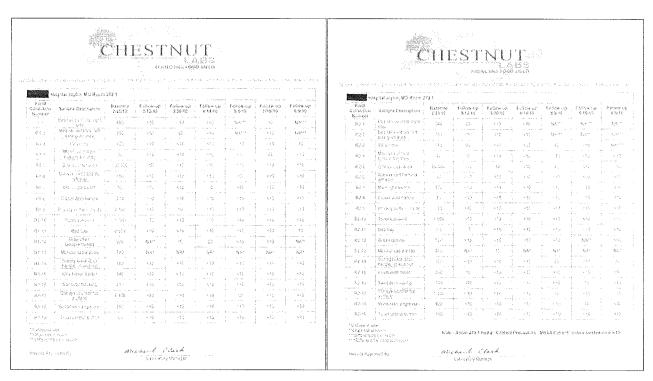
### Hospital 2 Continued

Room	First Follow-Up	Last Follow-Up	Total % Decrease
Room 4009	499	167	66.53%
Room 4029	944	280	70.34%

The chart above outlines the data for the first and last follow-up testing as well as the total percentage of decrease in microbes for each room tested in Hospital 2.

### The Results - Hospital 3

As demonstrated on the following certified reports from Chestnut Labs, a significant decrease in microbes in all areas treated and tested at Hospital 3 was found. In fact, the average decrease in harmful bacteria and microbes for the two rooms treated and tested at Hospital 3 was an astounding 99.84 percent!



The results shown above from Room 272 at Hospital 3 show a significant decrease in microbes. Swab tests were conducted every 15 days from February 2010 to June 2010 on 19 surfaces including the bed rail controls, television control, sink counter, monitor controls, light switch, closet door handle, privacy curtain, toilet surround and handle, chair, bed tray, sliding door handle, chart holder, and windowsill. The microbes in this room decreased by 99.87 percent!

The results shown above from Room 273 at Hospital 3 also show a significant decrease in microbes. Once again, swab tests were conducted every 15 days from February 2010 to June 2010 on 19 surfaces including the bed rail controls, television control, sink counter, monitor controls, light switch, closet door handle, privacy curtain, toilet surround and handle, chair, bed tray, sliding door handle, chart holder, and windowsill. The microbes in this room decreased by 99.81 percent!

### Hospital 3 Continued

Room	Baseline	Last Follow-Up	Total % Decrease
Room 272	205830	277	99.87%
Room 273	103940	193	99.81%

The chart above outlines the data for the baseline and final follow-up testing as well as the total percentage of decrease in microbes for each room tested in Hospital 3.

### **Final Conclusions**

All antimicrobials are not created equal. It's important to understand the basic chemical, physical, and biological properties of an antimicrobial so the best choice can be made. Because of its unique mode of action and inability to migrate from a treated surface, our technology is the obvious choice to minimize environmental contamination and the development of resistant organisms.

Our EPA approved products are safe for the environment, humans, and pets. They are non-dissipating, non-leaching, non-migrating from the applied substrate and cannot be absorbed by micro-organisms or by humans.

The results presented in this report support IDA's claims regarding its MonoFoil Microbiostatic Antimicrobial Coating. Independent laboratory tests from three hospitals in three states show the product to be extremely effective at decreasing the amount of bacteria and other microbes on both porous and non-porous surfaces.

For more information regarding MonoFoil Microbiostatic Antimicrobial Coating, please visit our website at www.monofoilclean.com.