

## *Evaluation of the Effectiveness of Zimek's Micro-Mist™ Decontamination System in Eradicating Bacterial and Mold Contaminants in a Correctional Facility*

Efficacy testing of Zimek's Micro-Mist™ Decontamination System was conducted in an inmate holding cell located in the MRSA quarantine unit of the Men's L.A. County jail and within an L.A. County inmate transportation bus. The testing environments were not able to be pre-cleaned before the initiation of the Dri-Mist® Decontamination Treatments, and thus the efficacy of the treatments were frustrated by the presence of various bioburdens (e.g., dried blood and vomit) and copious amounts of dirt and grime. Post-swabs of the treated areas nonetheless indicated that the Dri-Mist® treatments reduced the total CFU counts by approximately 99%, on average.

### **L.A. COUNTY JAIL CELL**

Swab Tests Results: Total Plate Count of Bacteria (CFU/Swab)				
Tested Areas	Bacteria Samples	Before Dri-Mist® Treatment 11/19/08	After Dri-Mist® Treatment 11/19/08	Kill Rate % of CFU Killed After Dri-Mist® 11/19/08
Top bunk rail	Aerobic plate count	1,100	<10	99.09%
	Staphylococcus	460	<10	97.83%
Windowsill	Aerobic plate count	13,000	230	98.23%
	Staphylococcus	840	30	96.43%
Floor by sink	Aerobic plate count	280,000	3,600	98.71%
	Staphylococcus	<10	<10	-
Toilet seat	Aerobic plate count	7,800	310	96.03%
	Staphylococcus	2,100	190	90.95%
	MRSA	170	<10	94.12%
Shower floor	Aerobic plate count	1,700	180	89.41%
	Staphylococcus	<10	<10	-
Agar Plates Results: Micorbial Specimens (CFU/60mm)				
Bacteria Specimens	Before Dri-Mist® Treatment 11/19/08	After Dri-Mist® Treatment 11/19/08	Kill Rate % of CFU Killed After Dri-Mist® 11/19/08	
Geobacillus Stearothermophilus	3,100	50	98.39%	
Staphylococcus Aureus	5,200	30	99.42%	
E. Coli	6,000	80	98.67%	
Mold				
Aspergillus	1,400	<10	99.29%	

### **L.A. COUNTY INMATE TRANSPORTATION BUS**

Swab Tests Results: Total Plate Count of Bacteria (CFU/Swab)				
Tested Areas	Bacteria Samples	Before Dri-Mist® Treatment 11/19/08	After Dri-Mist® Treatment 11/19/08	Kill Rate % of CFU Killed After Dri-Mist® 11/19/08
Steering wheel	Aerobic plate count	160,000	4,700	97.06%
	Staphylococcus	<10	<10	-
Driver's seat	Aerobic plate count	12,000	160	98.67%
	Staphylococcus	<10	<10	-
Deputy's seat	Aerobic plate count	5,600	130	97.68%
	Staphylococcus	<10	<10	-
Security front door	Aerobic plate count	15,000	1,300	91.33%
	Staphylococcus	1,600	110	93.13%
	MRSA	<10	<10	-
Inmate seat	Aerobic plate count	9,300	2,200	76.34%
	Staphylococcus	<10	<10	-
Agar Plates Results: Micorbial Specimens (CFU/60mm)				
Bacteria Specimens	Before Dri-Mist® Treatment 11/19/08	After Dri-Mist® Treatment 11/19/08	Kill Rate % of CFU Killed After Dri-Mist® 11/19/08	
Geobacillus Stearothermophilus	3,100	<10	99.68%	
Staphylococcus Aureus	5,200	<10	99.81%	
E. Coli	6,000	10	99.83%	
Mold				
Aspergillus	1,400	<10	99.29%	