

# HospitalitySafe

*Advanced Cleaning & Infection Control for  
Overnight Guests, Receptions, Gym Facilities  
& Dining Environments*



WCP Facility Solutions



# Mission

Utilize physics and chemistry to improve indoor air quality and surface hygiene in the places we work, eat, learn, and play.

# About WCP Facility Solutions:

## Business centered around Facility Health and Wellness

- Healthcare (HAI / CAI Eradication)
- Education (Student + Staff Safety / Savings + Benefits per Facility)
- Industrial (Employee Absenteeism / Environmental Safety)
- Agriculture (EPA Restrictions / Eliminate Mold / Fine Reduction)
- Entertainment (Music Venues / Stadiums, Arenas, Theaters, Clubs)
- Recreation (Cruise line Safety / Hospitality Industry, Gyms)
- Retail (Odor Reduction / Antimicrobial Laundry Additive)
- Liability Risk Mitigation / Lawsuit Avoidance

## Product Agnostic

- Find best in class products, design and implement a coordinated symbiotic suite of healthy building technologies and integrate them into profit solutions



# HospitalitySafe Agenda

## PHASE 1

**Identify the Problems**

## PHASE 2

**Increase Indoor Air Quality (IAQ) and implement cleaning and infection control solutions**

## PHASE 3

**Develop monitoring tools for the staff to ensure system compliance**

## PHASE 4

**Construct Cost/Benefit Analysis and Tax Savings**

## Immediately: “*Upgrade current public health practices.*”

WCP Facility Solutions recognizes there are no “*silver bullets*” in the world of infection control. We know the problem is complicated and requires multiple solutions. WCPFS specializes in implementing safer cleaning and persistent infection control strategies to “*control*” the spread of bacteria.

### Let us attack this problem for you by

- Using a systematic layered approach focused on proven methods of transmission and transference
- Instituting state of the art technologies to alleviate costs
- Implementing disruptive products to provide superior outcomes
- Improving your outcomes by monitoring your risks

# Methods of Transmission



## Surfaces

*Touch Contamination*



## Textiles

*Spore Capture / Bacteria*



## Hygiene

*Hand Washing*



## Exposure

*Outside Sources*



## Air

*Vectors / Air System Handling*

# BIOPROTECT™

## 6 Hour Hand Sanitizer

- Regular hand sanitizers work only when the product is wet
- BIOPROTECT™ unique alcohol-free foaming hand sanitizer delivers 6-hour residual protection on skin surfaces
- Benzalkonium Chloride/Aloe formulation, non-sticky, non-greasy, no odor
- Once applied the material bonds to the skin surface and provides continual protection even after hand washing/hygiene procedures
- Application on hands reduces inoculation of touch points throughout the environment, reduces cross contamination
- Alcohol-free, no fire hazard for storage, or false positive drug testing results for personnel
- Reduces staff absenteeism and presenteeism, aids in keeping inmates well



# Surface Antimicrobials

## Chlorine Dioxide Solution (ClO<sub>2</sub>) and Chlorine Dioxide - Off Gassing Deodorizing Tablets Hypochlorous Acid (HOCL) - Disinfectant

- **Chlorine Dioxide (ClO<sub>2</sub>)** is an all-purpose, surface cleaner which is an excellent solution to eliminate smoke and odors
- **Off Gassing Tablets (ClO<sub>2</sub>)** require no labor – to activate simply place the tablet in the appropriate container of water
- **Chlorine Dioxide (ClO<sub>2</sub>)** is the CDC's recommended product for disinfection of PPE vs Ebola.
- **Hypochlorous Acid (HOCL)** is made naturally by white blood cells in all mammals for healing and protection
- **Hypochlorous Acid (HOCL)** is a powerful oxidant that is effective against bacteria, fungi, and viruses

### Label Claims Bacteria and Fungi

- Salmonella enterica
- Escherichia coli
- MRSA
- Salmonella enterica
- Acinetobacter baumannii
- Staphylococcus aureus
- Legionella pneumophila
- Aspergillus niger
- Enterobacter aerogenes
- Listeria monocytogenes

### Label Claims Viruses

- HIV-1
- Norovirus (feline calicivirus surrogate)
- Respiratory syncytial virus
- Rotavirus
- H1N1 flu virus
- H5N1 flu virus
- Hepatitis B
- Hepatitis C



# Chlorine Dioxide (ClO<sub>2</sub>)

## Chlorine Dioxide Solution- Deodorizer Chlorine Dioxide - Off Gassing Tablets

- ClO<sub>2</sub> is an all-purpose, hospital grade, multi-surface cleaner, used to control odors
- 30gm Stabilized powder packet makes 3 gallons of solution
- 20gm off Gassing Tablets require no labor – simply place the tablet in the appropriate container of water
- Chlorine Dioxide is the CDC's recommended product for disinfection of PPE vs Ebola. Eliminates smoke and odors
- Off Gassing Tablets provide coverage to spaces that cannot be conventionally cleaned
- 4gm ClO<sub>2</sub> tablets when used in vehicles treats cabin ducts and filters eliminating odors



# Chlorine Dioxide (ClO<sub>2</sub>)

## Slow Release Sachets Destroys Odors in Vent Systems and Spaces

- ClO<sub>2</sub> is an all-purpose, hospital grade, multi-surface cleaner, broad spectrum deodorizer
- Each Packet contains ClO<sub>2</sub> sandwiched in between a semi - permeable membrane releasing consistent amounts of ClO<sub>2</sub> gas to purify the air
- **Packets** require no labor - simply place the sachet in the appropriate size holder and place in the area to be treated
- **Chlorine Dioxide** Eliminates smoke and odors
- **Packets** can used in vehicles eliminating odors
- **Place packet** in duct work, vehicles, sport & school bags, attics, closets, basements, restrooms.



**KloreSe™**



### Why Klorese?

When mixed with water, Klorese tablets release Hypochlorous Acid, producing an EPA-registered broad spectrum disinfectant that kills pathogens including biofilm, human coronavirus, C. diff endospores, MRSA, E coli, Norovirus and more. With neutral PH, it is safe and effective to use on any surface and in any facility.

	Klorese vs Bleach vs Quats		
Sporicidal	✓	✓	✗
Kills biofilm	✓	✗	✗
No significant health risk	✓	✗	✓
No odor or mild odor	✓	✗	✓
No damage to floors	✓	✗	✓
Shelf life when diluted	6 days	12 hours	1 day
Shelf life before dilution	3 years	1 year	2 years
Hazardous Materials Identification System (HMIS) rating	1 (Slight hazard)	2-3 (Moderate to serious hazard)	1 (Slight hazard)

# SHIELD™ Disruptive Biostatic Agent 90 Day Surface Protectant

- Effective on surfaces for up to 3 months
- Eliminates bacteria, mold, fungus, algae, and other odor causing microbes
- Organic, non-toxic, non-leaching, water-based molecule
- Persistently kills organisms mechanically instead of chemically
- EPA approved for porous and non-porous surfaces
- Works on textiles in laundry solutions, provides odor control
- Provides an anti-static component to laundered textiles
- A Silicone Quaternary Ammonium Salt (Organo-Silane Molecule)
- Approved for direct surface food and pet contact
- Edison Award Winning “Best New Product”





# SHIELD™

## Laundry Treatment

- Organic product non-toxic, water-based molecule laundry softener for clothing, uniforms, textiles, and tablecloths
- Add 2-4 ounces to laundry (depending on load size )during rinse cycle to turn garments antimicrobial and hydrophobic
- Extends garment/uniform life as bacteria feed off dead skin cells embedded within the clothing fibers
- When the SHIELD™ treatment has dried and establishes its mechanism of defense the matrix inherently adds beneficial hydrophobic qualities to textiles with which it has been applied
- This process enhances the material's ability to resist spills, soiling, liquids and absorption of sweat and body odors while still allowing the garment to significantly breathe and provide evaporative cooling
- Provides anti-static component
- Exceptional odor control

# PerfectCLEAN™ Microfiber

- Physically removes 85% of grime, dust and Micro-organisms
- Durable and Chlorine Stable designed to meet CDC guidelines for Blood-Borne Pathogens
- Lint-free therefore lessens particulates produced from paper towels
- Multicolor to identify use area (Bathroom vs Kitchen Applications) helps limit cross contamination
- Provides an electrostatic charge to *attract* debris
- Aides in achieving Dwell Time
- Reduces waste
- Highest Absorption Capacity of any Product Tested
- Multiple patents including internationally patented "Built-in Antimicrobial Product Protection"



# Scrub & Clean Sponge

Proprietary Antimicrobial coated.  
One side is a dense terry-type material ideal for cleaning and the back side has “thin film” knitted into the surface to provide for a less aggressive scrubbing action. The terry side is made from TW420AM, a proprietary double sided terry material developed to meet the rigorous quality, durability and performance of the commercial laundry. Adhering to strictest Quality Control Standards this material offers the highest concentration of micro-denier fiber resulting in unrivaled performance – it takes the effort out of cleaning.



# The Problem: Odor & F.O.G.

- Virtually all food service environments suffer from Odor, Fats, Oils and Grease (F.O.G.)
- Ineffective cleaning protocols often lead to problematic odor sources as fats and organic matter putrefy. Residual Grease and Oils on surfaces create risk for patrons, staff and generate additional expenses.
- **Costs:** According to the [Centers for Disease Control and Prevention](#), the average hospital cost of a slip and fall is more than \$30,000. The [most common](#) way to suffer a brain injury is falling. The average cost of restaurant cleaning is \$85 per hour with average restaurant cleaning services rates and prices ranging from \$20 to \$150 per hour for the US in 2020. Grease Trap Cleaning, Fan Hoods and Food Preparation areas provide for the majority of expenditures in both material costs and labor.
- **Litigation:** The average [slip-and-fall](#) settlement is between \$10,000 and \$50,000, the number of awards is expected to rise. Compliance fines for State and Local Health Code Violations regarding F.O.G. can range from a few Hundred Dollars to over \$10,000 per incident and rise to a level of requiring operation shutdown.

**Slip and falls are a leading cause of injury for all age groups**



# Creating “Clean” Surfaces

## PHASE 1

**Clean & Degrease-** Down to the surface level, removing skin oils, dead cells, biofilms, organisms and grime

## PHASE 2

**Disinfect-** Using non-toxic , direct “food contact” approved, safer products

## PHASE 3

**Protect-** Apply persistent cleaning anti-microbials to provide continuous activity

## PHASE 4

**Monitor the Results-** Collect sample data for surfaces via aerobic swabs, air impaction devices and forward for laboratory analysis to assess risk and determine potential problem areas



# F.O.G. Eradication



- Mop Floors
- Sanitize Tables
- Clean Bathrooms
- Clean Grease Traps
- Clean Cooking Equipment
- Clean Windows
- Cost Effective Formulation

# SIMIX™ Floor Coating

- Provides a Nano-Technology Surface Treatment rendering flooring surfaces antimicrobial, through high pH (12) and inclusion of Spot-On technology
- Nano-Technology forms a glass-like composite, and is not a wax, therefore much less slippery
- Provides documented reduction of “slip and fall” incidents
- Easy-to-use (two people can apply 10,000 square feet in approximately 2-hours)
- Maintenance is as easy as periodic swabbing with Simix™ Multi-Surface Cleaner
- Significant labor cost savings over conventional floor treatments
- Adjunctive to increased air quality: Eliminating bio burdens



# SIMIX™ Floor Coating Reducing “Slip and Fall” Incidents

SIMIX Multi-Surface Ceramic Clearcoat creates less slippery floors and is rated as high traction by ANSI standard “Dynamic Coefficient of Friction” (DCOF) testing. Using a tribometer on a wet surface, floors treated with Simix™ maintain high DCOF ratings (above .42) and are safer for students, customers, faculty and staff. This results in a reduction of “slip and fall” incidents, relating filing of potential lawsuits, insurance claims and processing of requisite paperwork.



Coating DCOF result ANSI Standard Range SIMIX  
Ceramic Clearcoat = .436 High traction

# Indoor Air Quality Approach

We understand that decreasing overall particulates and bio-burdens found in the environment of confined spaces, leads to requisite decreases in associated cleaning costs, along with decreased risk of microbial touch contamination, airborne related illness and exposure to nosocomial organisms.



**SIMIX Multi-Surface Ceramic Clearcoat improves the ability of any new or old unit to produce dramatically colder and fresher air**

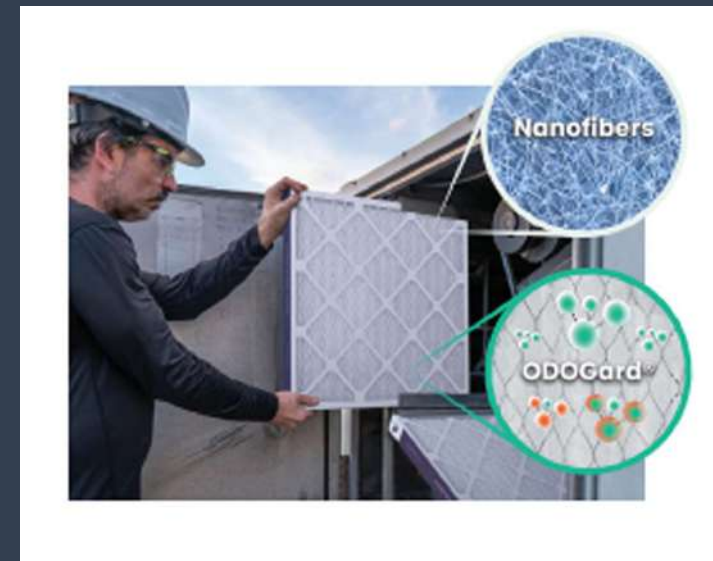


## **Multi-Surface Ceramic Clearcoat**

- **Lowers your energy bill 10%–20%**
- **Add years to the life of your A/C units**
- **Destroys all foul musty odors**
- **Prevents salt damage**

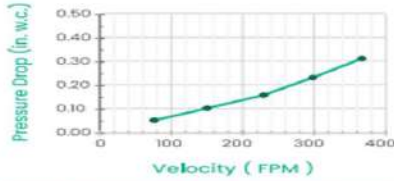
# Air – Greentech™ Containment Filter with ODOgard™

- The most cost effective solution for improving indoor air quality, eliminating odors, and saving energy in commercial buildings.
- Great for older equipment, areas that require better filtration, construction material off-gassing, high traffic areas, LEED buildings, and any odors or volatile organic compounds, everywhere you have a pleated
- True mechanical MERV 13A with low pressure drop equal to a true mechanical 8A airflow, for better energy efficiency and provides less stress on existing HVAC systems.
- 2 in 1 filter- High MERV rated filter plus the advantages of gas phase reductions for odors and VOC's.
- ODOgard™ creates a molecular bond with odors and renders the odor inert, eliminating them.



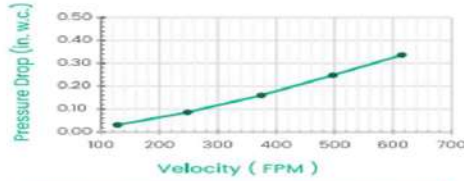
## Greentech Filters+ Pressure Drop vs. Flow Rate

**1" Filter**



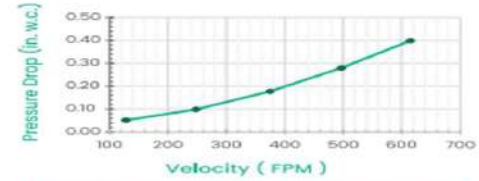
Velocity (FPM)	Press Drop (in. w.c.)
73.75	0.05
147.50	0.10
221.25	0.16
295	0.23
368.75	0.31

**2" Filter**



Velocity (FPM)	Press Drop (in. w.c.)
123.00	0.03
246.00	0.09
369.00	0.16
492.00	0.25
615.00	0.34

**4" Filter**



Velocity (FPM)	Press Drop (in. w.c.)
123.25	0.05
246.25	0.10
369.50	0.18
492.50	0.28
615.75	0.40

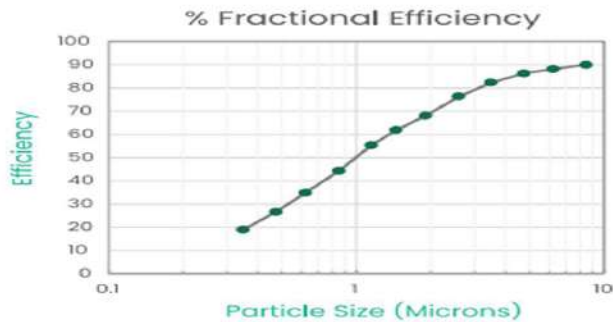
## ASHRAE 52.2 Test Data

**Filter Size:**  
24" x 24" x 2"

**Test Aerosol:**  
KCl, Neutralized

**Flow Rate:**  
1,968 CFM

**Velocity:**  
492 FPM



Size Range (µm)	Initial Fractional Efficiency	
0.30 - 0.40	19.0%	<b>E<sup>1</sup></b>
0.40 - 0.55	26.7%	
0.55 - 0.70	34.9%	
0.70 - 1.00	44.3%	<b>E<sup>2</sup></b>
1.00 - 1.30	55.3%	
1.30 - 1.60	61.9%	
1.60 - 2.20	68.0%	<b>E<sup>3</sup></b>
2.20 - 3.00	76.3%	
3.00 - 4.00	82.3%	
4.00 - 5.00	86.3%	
5.50 - 7.00	88.2%	
7.00 - 10.00	90.0%	



# Monitoring – We do what we say we do...

- WCP Facility Solutions maintains a number of strategic alliances with technology companies providing monitoring of viable air samples and surface contamination with cloud based and off-site notification capabilities
- Providing “state of the art” measurement of environmental parameters such as:
  - Temperature
  - Humidity
  - Ozone
  - CO<sub>2</sub>
  - CO
  - Pressure Differentials
  - Particulate Matter from 0.1 micron to 10 micron
  - VOC's
- Protect staff, employees, guests, visitors and decrease likelihood of transmission to residents





# Keep Transport Vehicles Safe and “Odor Free” 24/7

- Clean all Transport Trains, Buses, and Vehicles with Microfiber
- Deodorize with Chlorine Dioxide Off-Gassing tablets (CLO<sub>2</sub>)
- Disinfect with Hypochlorous Acid (HOCL) solution
- Residually Protect with SHIELD™ Protectant Technology
- Remain continuously and residually protected from facilities to airports, recreation areas and tours

# Hospitality**Safe** Summary



## Lower Operating Costs

*Cleaning, Staff Absenteeism and Presenteeism*



## 24/7 Protection

*Continuous surface + textile cleaning and sub-micron air filtering*



## Helps Ensure Safety

*of staff and visitors*



## Environmentally Safe

*Exceptional mold and odor control*

SHIELD™ Surface Protectant

SHIELD™ Laundry Treatment

BIOPROTECT™ 6 Hour Hand Sanitizer

PerfectCLEAN™ Microfiber

Greentech™ Filters

Hospital Grade Disinfectants

Simix™ Products

Atmo-Cube™ Air Monitoring

Risk Mitigation and Management

Infection Control Consulting



WCP Facility Solutions

Your Partner for Safe and Healthy Facilities

# Thank You For Your Interest!

Ken Horton  
President  
WCP Facility Solutions  
Tel: 480.861.1427  
email: [ken@wcpfacility.com](mailto:ken@wcpfacility.com)  
Please visit us at <https://wcpfacility.com>

---