



Trinks Consulting  
GROUP

# First ResponderSafe

*Protecting First Responders and Patients from CAIs*

# About Trinks Consulting Group

## Business centered around antimicrobials

- Healthcare (HAI / CAI Eradication)
- Industrial (Employee Absenteeism / Environmental Safety)
- Agriculture (EPA Restrictions / Fine Reduction)
- 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 symbiotic technologies and integrate them into profit solutions



# Our Approach

Trinks Consulting Group recognizes that there are no silver bullets in the world of infection control. We know the problem is complicated and will require multiple solutions.

**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 technologies to provide superior outcomes**

# Methods of Transmission



## Surfaces

*Touch Contamination*



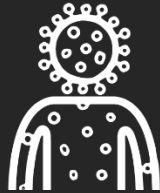
## Textiles

*Spore Capture / Bacteria*



## Hygiene

*Hand Washing*



## Exposure

*Outside Sources*



## Air

*Vectors / Air System Handling*



# First ResponderSafe

Provides persistent antimicrobial surface protection for:

- Ambulances
- Emergency Vehicles (EMS)
- Uniforms / Kevlar Vests
- Fire / Police / Emergency Facilities

Continuous particulate containment air filtration for permanent and temporary facilities.

# Surface Antimicrobials

## Chlorine Dioxide Solution

## Chlorine Dioxide - *Off Gassing Tablets*

## Hypochlorous Acid - *Disinfectant*

- **CLO<sub>2</sub>** is an all-purpose, hospital grade, multi-surface cleaner, broad spectrum disinfectants/biocides
- **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
- **Hypochlorous Acid** is made naturally by white blood cells in all mammals for healing and protection
- **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-I
- Norovirus (feline calicivirus surrogate)
- Respiratory syncytial virus
- Rotavirus
- H1N1 flu virus
- H5N1 flu virus
- Hepatitis B
- Hepatitis C

# **BIOPROTECT™** Biostatic Agent + 90 Day Surface Protectant

- Effective on highly abraded surfaces for up to three months
- Eliminates mold, fungus, algae, bacteria, 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 anti-static component
- A Silicone Quaternary Ammonium Salt (Organo-Silane Molecule)
- Approved for direct food and pet contact

# 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 skinsurface 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

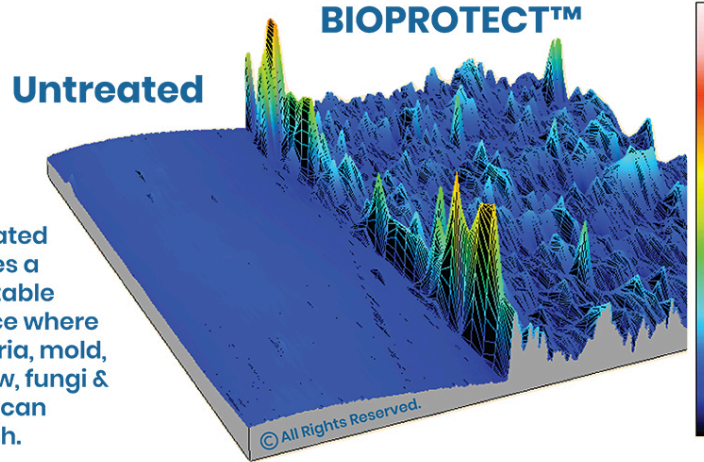




# BIOPROTECT™

## Technology

When applied to a surface or incorporated into a material, BIOPROTECT™ forms a covalent bond with the substrate and creates a microbiostatic antimicrobial protective layer, making it unreceptive to microorganisms. The coating forms a nano-bed shield of spikes (self-assembling monolayer), each of which carry a positive charge that attracts the negatively charged microorganism. Once attracted, the molecular spikes pierce the cell and rupture its cell membrane, causing the microorganism to die.



Untreated creates a hospitable surface where bacteria, mold, mildew, fungi & algae can flourish.

BIOPROTECT™ treated surface creates an inhospitable surface where odor & stain causing bacteria mold, mildew fungi & algae are mechanically killed by spikes, inhibiting growth on the surface.

# **BIOPROTECT LS 420** Textile Technology

- **Organic product non-toxic, water-based molecule laundry softener for clothing, uniforms, textiles, and tablecloths**
- **Dramatically limits biological contamination of First Responder uniforms and equipment**
- **Greatly reduces odor issues associated with ballistic vests and is not harmful to Kevlar**
- **Will not inhibit the protective capabilities of NOMEX and significantly reduces cleaning costs**
- **Provides a protective barrier to help mitigate mold and algae formation on canvas hoses**
- **When the BIOPROTECT™ treatment has dried and establishes its mechanism of defense the matrix inherently adds beneficial hydrophobic qualities to textiles with which it has been applied.**
- **Extends garment life as it limits microbial degradation of fabrics**
- **Exceptional odor control**
- **Provides Anti-static component**

# High Quality Microfiber

Physically removes 85% of grime, dust and Micro-organisms

Lint-free therefore lessens particulates produced from paper towels

Multicolor to identify use area helps limit cross contamination

Provides an electrstatic charge to attract debris

Aides in achieving Dwell Time

Reduces waste





# Advanced Biological Air System

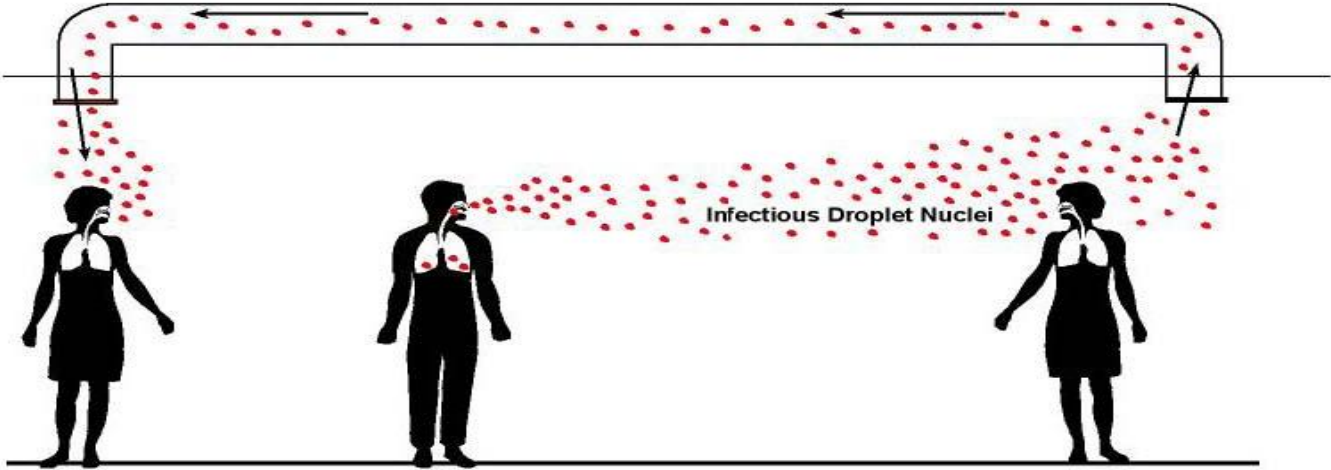
## *Sanders Particulate Containment Air Filters:*

- Provide HEPA quality air filtration on existing HVAC systems
- Can be configured to pull VOCs and gases
- Can be configured to work on fans and low flow systems
- Can be configured for ambulances

## *Easy-to-use:*

- Apply with double-sided tape or Velcro
- Dramatically improves air quality
- Quickly configures make-shift morgues, triage centers
- Permanently protects first responder infrastructure (stations, sub-stations)

# Infectious Droplet Nuclei travel within buildings



# Air – Particulate Containment Filter

*Question: How do we keep microbes from initially entering the HVAC system? Answer: We add a preventative barrier.*

- A new synthetic media substrate has been developed that has efficiencies to meet or exceed Indoor Air Quality (IAQ) compliance standards now being mandated nationally (MERV 13 50%@ 0.3 micron).
- The main advantage to this media is unlike current hard-sided microfine glass filter technologies it is a soft, flexible pad with very low static pressure that can be cut to conform to any filter configuration and may be utilized with existing filter frames.
- No need to retrofit existing filter frames and holders and may be used with odd-sized modules, unavailable from commercial manufacturers.
- Works on low flow systems-PTAC (Packaged Terminal Air Conditioner) and split air handling units, reduces need for continual dusting of surfaces.

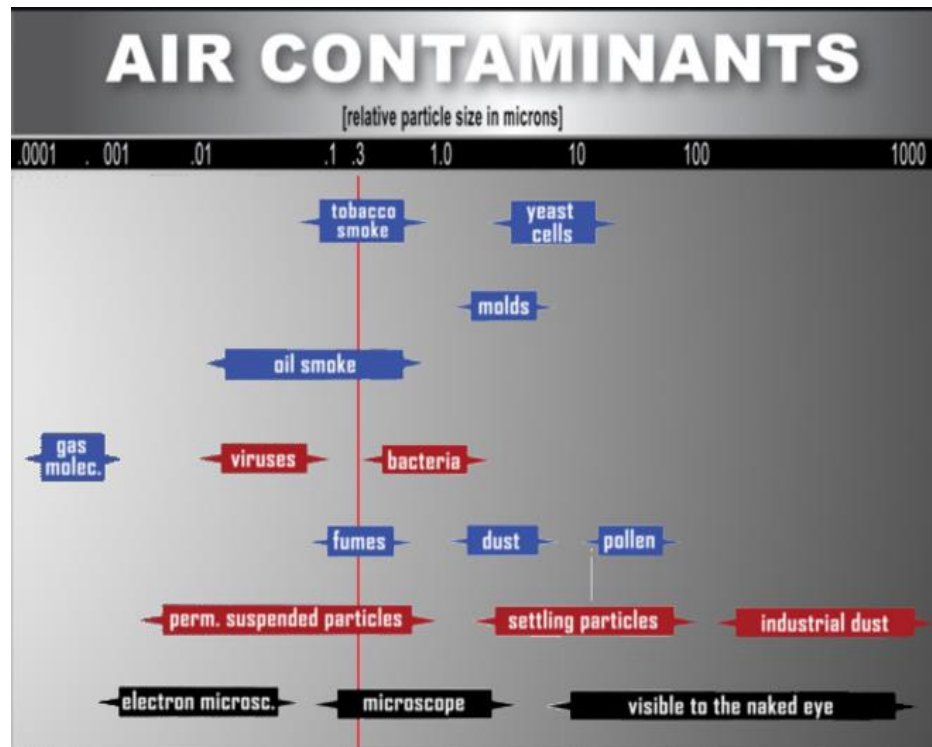
# Air – Particulate Containment Filter

- This disruptive technology allows for particulate filtration at the return vents directly in the room and common areas of the building.
- Sanders Series 150 material provides MERV 16 level air and removes 95% of particulates @ 0.1 micron (far exceeding the national mandate) on a single pass.
- The particulate containment filter can be installed and removed easily and requires no retrofit to the existing HVAC main system.
- This allows the preventive capture of microbes as they are about to enter the HVAC system, thereby drastically reducing the migration of organisms from one area of the facility to another.



# Air – Particulate Containment Filter

- Each cough or sneeze can produce over 1 million airborne vector particles per incident
- The only low resistance material considered effective on particulates of this size
- Many of these particulates are drawn into the HVAC system that acts as a dispersal mechanism and collects dust like a magnet
- Capable of working on independent air movers and HVAC systems
- Protect staff and patients from particles the size of known pathogens





# Sanders Portable Filtration Provides Instant Benefit for Indoor Air Quality



# First ResponderSafe Summary



## Lower Operating Costs

*Cleaning, Staff Absenteeism & Presenteeism*



## 24/7 Protection

*Continuous surface/textile cleaning & sub-micron air filtering*



## Helps Ensure Safety

*of staff and visitors*



## Environmentally Safe

Infection Control Consulting

BIOPROTECT™

6 Hour Hand Sanitizer

90 Day Surface Protectant

LS 420 Laundry Treatment

PerfectClean™ Microfiber

Sanders™ Containment Filters

Hospital Grade Disinfectants

Environmental Monitoring