

Advanced technologies and streamlined chemical  
disinfection processes to address the challenges of today and  
the EMERGING THREATS OF TOMORROW



# ARE YOU PREPARED?

Enhanced Cleaning & Disinfection System for Healthcare



evaclean™

INFECTION PREVENTION SOLUTIONS BY EARTHSAFE

# THE PROBLEM

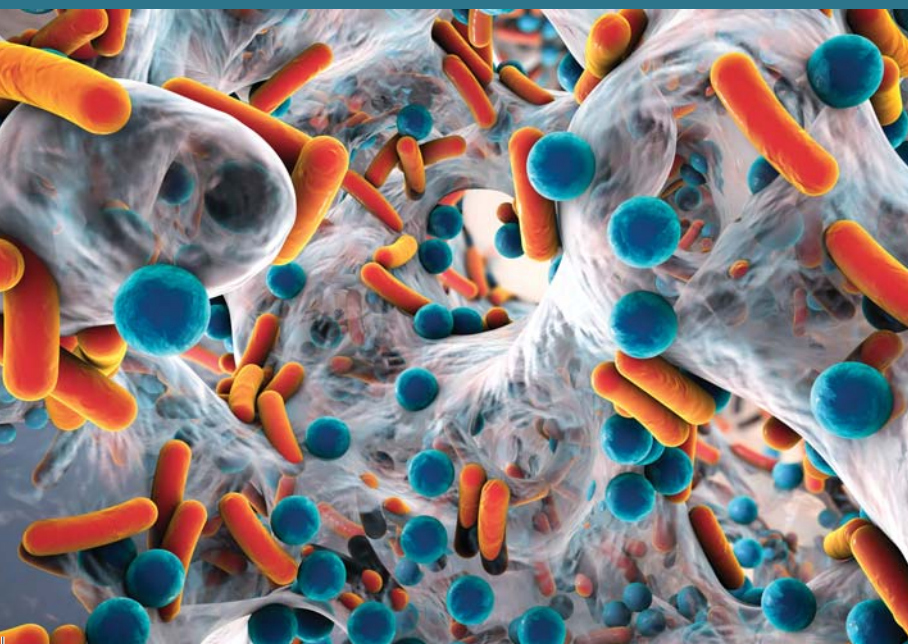
Just because you are using a disinfectant, does not mean you are disinfecting.

Every year over **720,000** people suffer from healthcare-associated infections (HAI) in the USA, and **100,000** die from them. Many of these infections are preventable with proper environmental sanitation. But the cleaning industry faces many challenges including a lack of time, staff, budget, and compliance. As a result, **50% of patient room surfaces and 75% of operating room surfaces are not properly disinfected and many are home to biofilm.**

## What is biofilm?

Biofilm forms when bacteria join together on a surface in clumps and form a protective coating around themselves which makes them resistant to disinfectants. While each individual bacterium in biofilm would be susceptible to drugs, together they are resistant (a.k.a. Multi Drug Resistant Organisms – MDROs).

**93% of critical surfaces in hospitals harbor biofilm**



# A Growing Global Health Threat

**> 1.5 MILLION**  
**15 to 65% mortality**

Annual Worldwide Deaths from IFIs

The Centers for Disease Control and Prevention (CDC) estimates

DRUG-RESISTANT BACTERIAL  
AND FUNGAL INFECTIONS  
cost U.S. healthcare system

approximately **\$20** to **\$25**  
billion annually.



Dry surface biofilms containing MDRO's are found on ICU surfaces despite terminal cleaning. (The Healthcare Infection Society)

**PUR:ONE** is the first chemical with an EPA registered kill claim against bacteria present in biofilm.

Pathogens can survive on surfaces and equipment for days and even months. In today's environments where there are more "Super Bugs" and antibiotic resistant bacteria than ever before, the need for better cleaning and disinfecting of all surfaces has never been more urgent.



# Snapshot of EarthSafe Sporicidal Tablets Kill Claims.

BACTERIA	Effective Against:	PPM Contact Time	VIRAL	Effective Against:	PPM Contact Time	
	<i>Staphylococcus aureus</i>	4306 ppm – 4 min		BIOFILM *PUR:ONE Only	<i>Mycobacterium bovis</i> (TB)	5382 ppm – 4 min
	<i>Staphylococcus aureus</i> – methicillin resistant (MRSA) & glycopeptide-resistant (GRSA)	4306 ppm – 4 min			<i>Pseudomonas aeruginosa</i> (in a biofilm)	4306 ppm – 4 min
	<i>Staphylococcus epidermidis</i>	1076 ppm – 10 min			<i>Staphylococcus aureus</i> (in a biofilm)	4306 ppm – 4 min
	<i>Salmonella enterica</i>	4306 ppm – 4 min			Respiratory syncytial virus	538 ppm – 10 min
	<i>Pseudomonas aeruginosa</i>	4306 ppm – 4 min			Rhinovirus Type 14	1076 ppm – 10 min
	<i>Streptococcus pneumoniae</i>	4306 ppm – 4 min			Influenza Virus H1N1	4306 ppm – 4 min
	<i>Escherichia coli</i> O157:H7	1076 ppm – 10 min			Human Immunodeficiency Virus Type 1 (HIV-1)	4306 ppm – 4 min
	<i>Acinetobacter baumannii</i>	4306 ppm – 4 min			Hepatitis A virus	4306 ppm – 1 min
	Vancomycin resistant <i>Enterococcus faecalis</i>	4306 ppm – 4 min			Hepatitis B virus	4306 ppm – 1 min
	Carbapenem resistant <i>Klebsiella pneumoniae</i>	4306 ppm – 4 min			Hepatitis C virus	4306 ppm – 1 min
	<i>Clostridium difficile</i> spores	4306 ppm – 4 min			Avian influenza A (H5N1)	4306 ppm – 1 min
	<i>Klebsiella pneumoniae</i>	1076 ppm – 10 min		FUNGAL	Norovirus	2153 ppm – 1 min
			Poliovirus Type 1	1076 ppm – 10 min		
			Coxsackievirus B3	4306 ppm – 1 min		
			Herpes simplex virus type 1	1076 ppm – 10 min		
			<i>Aspergillus fumigatus</i>	4306 ppm – 1 min		
			<i>Trichophyton interdigitale</i>	1076 ppm – 10 min		

## Clear Choice for Sporicidal Disinfection

PUR:ONE and PURTABS can replace bleach, peracetic acid, and quats in any disinfecting program.



Chemistry/ Product	NaDCC/ PURTABS & PUR:ONE	Sodium Hypochlorite/ Bleach	PAA (Peracetic Acid)/ Oxycide
Active Ingredient	48.21% sodium di-chloro-s-triazinetriene	8% sodium hypochlorite	37.5% hydrogen peroxide / 5.8% peroxyacetic acid / 8% acetic acid
Active in diluted product	4306ppm	9000ppm	6445ppm hydrogen peroxide
Sporicidal Contact Time	4 minutes	5 minutes	5 minutes
Bactericidal Contact Time	4 minutes	10 minutes	3 minutes
Non-Enveloped Virucidal Contact Time	1 minute	5 minutes	10 minutes
Tested Using EPA Standards for Efficacy with a Soil Load	Yes	Yes	No
pH	6.5 to 7.0 (neutral)	12 to 13 (highly alkaline)	2.0 to 3.0 (acidic)
Compatibility with wipers and mops: Cellulose: Cotton: Microfiber:	Yes Yes Yes	Yes Yes Yes	No, No, Yes
Incompatible materials	Carbon Steel Cast Iron	Non-Stainless Steel, Aluminum Silver, Chipped Enamel Marble Vinyl	Non Stainless Steel, Aluminum, Silver, Chipped Enamel, Marble, Carbon Steel, Cast Iron, Granite, Acrylic, Linoleum, Leather, Neutral Rubber.
Ease of Mixing	Very Easy Tablet formulation eliminates splashing and vapor. Tablet is self-measuring, so no additional equipment is required. Minimal PPE required.	Difficult Liquid formulation can splash and aerosol. Measuring device needed. Moderate PPE required.	Very Difficult Special hazmat training required. Staff must don full-body chemical resistant PPE. Special dilution equipment required, which demands routine maintenance. Liquid formulation can splash and aerosol. Ventilation required.
<b>FORMAT</b>	<b>In-Use Dilution</b>	<b>In-Use Dilution</b>	<b>In-Use Dilution</b>
HMIS Rating	0/0/0	N/A	1/0/0
Odor	Light chlorine	Strong chlorine	Pungent vinegar



*Candida Auris – Invasive Fungal Infections are an Emerging Threat*



- **C.auris** is a deadly fungus infection. Nearly 50% of patients who contract **C.auris** die within 90 days. (CDC)
- **90%** of **C.auris** infections are resistant to one anti-fungal drug, **30%** are resistant to at least two. (CDC).



## The New Standard for Infection Prevention

Clinical efficacy of Infection Prevention Programs is not based on equipment or chemicals alone.

Only through a systematic, standardized approach to infection prevention can one ensure significantly better results. With the **EvaClean's** NaDCC chemistry and end-to-end system you can:

- **Improve** compliance standards
- **Eliminate** potential failure points from human error
- **Simplify** the process with safer technology and chemicals
- **Reduce** outbreaks and HAIs
- **Boost** worker happiness and success

EvaClean's innovative technology and standardized process help you achieve reliable training and management of personnel, adequate contact time, compliance with protocols, accessibility to surfaces, and measurable auditing through microbiological analysis.

## On The RISE

An increasing number of people in the U.S. have **compromised immune systems**, putting them at greater risk for IFIs. High-risk groups include:

- hospitalized patients
- cancer or transplant patients
- patients undergoing surgery
- patients with chronic diseases

Rates of invasive candidiasis are difficult to estimate and can vary based on time, region, and study type.



Still, it is clear that overall **incidence and related mortality** remain high – especially among **older patients**.

**Candida auris (C.auris)** is an emerging drug-resistant fungus that spreads quickly and has caused serious and deadly infections in over a dozen countries.



The CDC estimates that **more than one in three patients** in the U.S. with invasive **C.auris** infection will die.

# EarthSafe Sporocidal Tablets



## A Single Chemistry Solution

The easiest way to eliminate user failure is by simplifying your processes. By using one chemistry throughout the cleaning process you eliminate confusion about what to use when. Our tablets have **one set of directions** for both cleaning (PUR:ONE) and disinfecting (PUR:TABS) solutions. Their worker-safe formulation eliminates chemical hazards and exposure, increases worker safety, and ensures a higher level of compliance in chemical usage concentration and dwell time.



## A Safer Disinfectant

Both PUR:ONE and PUR:TABS are composed of Sodium Dichloro Isocyanurate (NaDCC), environmentally-preferable disinfectant tablets that releases hypochlorous acid when dissolved in water. PUR:ONE also has a surfactant to help kill bacteria biofilm. PUR:TABS are formulated for final disinfecting with touchless electrostatic application.

### PUR:ONE and PUR:TABS tablets:

- Kills *C.diff* in 4 minutes
- EPA K list approved product recommended by the CDC for *C.auris* and other Emerging pathogens.
- OSHA Bloodborne pathogen standard compliant
- Broad spectrum from food contact surface sanitizer to hospital grade disinfectant
- Neutral pH of **6.0 to 7.0**,
- NFPA Rated 0,0,0 Use Dilution



## Step 1

### High Touch Surfaces & Floors Use PUR:ONE

cleaning & disinfecting tablets to clean as usual (with a mop, spray bottle, and microfiber). PUR:ONE cleans, disinfects, and kills bacteria in biofilm in 4 minutes.



## Step 2

### Enhanced Disinfection for Terminal Clean Use PUR:TABS

with one of our two touchless electrostatic sprayers to get wrap around touchless disinfection of all surfaces.

Cleaning protocols tailored around the Evaclean system are cost effective, accessible, practical, safe, and scalable. We offer simplified processes that can be replicated and scaled.



Transparency and accountability are the most needed improvements for effective infection prevention. Only EvaClean delivers a program from A to Z that addresses this need.



## Touchless technology.

Untouchable results.

### Electrostatic Sprayers

**Electrostatic sprayers** positively charge droplets so that they are more attracted to surfaces (and are less likely to get lost in the air). This technology has been used for years in other industries but had not been available for disinfecting applications until now.

Evaclean offers two electrostatic spraying devices to give workers the powerful tools they need to attack microbes and decontaminate facilities more effectively. Both can be used to provide a touchless final disinfection step to kill pathogens in high touch areas and hard to reach places.

## 10X FASTER THAN TRADITIONAL TOOLS

PX200ES Cordless Electrostatic Handheld Sprayer



PX300ES Cordless Electrostatic Backpack Sprayer



Cordless Operation	✓	✓
Trigger Lock	✓	✓
Adjustable Nozzle	✓	✓
Work Surface Illumination	✓	✓
Quiet Operation	✓	✓
Weight	3.8 lbs	15.5 lbs
Battery Life	4 Hours	4 Hours
Surface Area Coverage	800-1000 sq ft	8000-10,000 sq ft



evaclean™

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