



# PURTABS

EFFERVESCENT SANITIZING / DISINFECTION TABLETS



**Disease Prevention is the Cure.**  
NaDCC/ (HOCL) is the Answer.



**EARTHSAFE**  
CHEMICAL ALTERNATIVES

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## INFECTIOUS DISEASES ARE SERIOUS BUSINESS.

### What is the probability of contracting an infectious disease?

**ENORMOUS.** Every public surface can potentially be contaminated with bacteria or viruses including (but not limited to) staph, hepatitis, norovirus, strep, HIV, salmonella, influenza H1N1, rhinoviruses. C. Diff spores and much more. No surface is safe, and some are worse than others.

- Desks were found to have **400X** more bacteria than a toilet seat.
- Tests have proved that in just a few hours, viruses can spread to **60%** of a building's occupants from a single doorknob.
- Studies determined that **28%** of gym surfaces tested positive for contamination
- CDC statistics showed 3 out of 4 norovirus outbreaks occur in long-term care facilities and nursing homes



### Who is at risk? Everyone.

**From children to our pets to our elderly,  
we are all at risk!**

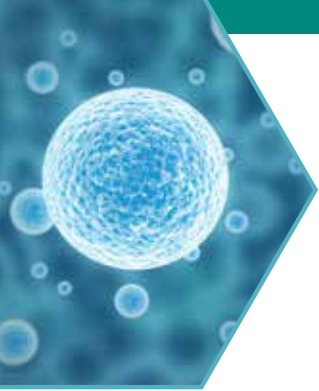


Daycares and schools • athletic facilities and gyms • offices and stores • food processing • restaurants and grocery markets • trains, Planes and buses • hotels and cruise ships • shipping and boats of all types • theatres and amusement parks • hospitals, medical facilities and first responders • agriculture • animal care

Even residential homes are all known to spread infectious diseases, as well as exposure to mold and allergens.



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## *What's wrong with using Bleach and Quats to sanitize and disinfect?*

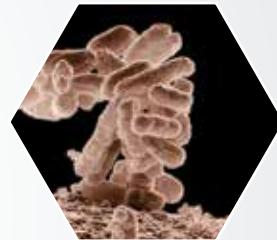
Traditional sanitizer/disinfection approaches like chlorine bleach and quarternary ammonium compounds, or quats, are toxic to humans, corrosive to materials and harm the environment they are released to. NaDCC tablets that produce hypochlorous acid (HOCL) when added to water are the less toxic alternatives to chlorine bleach & quats.

- Because chlorine bleach is a hypochlorite (-OCL) and is highly reactive, impure, unstable and sensitive to light and temperature. Quats & chlorine bleach exacerbate or cause asthma.
- Chlorine bleach concentrate begins to degrade from the moment it's manufactured and, within a month, easily loses a third or more of its activity. When diluted bleach is effective for only hours.
- In addition, bleach and quats are highly corrosive to metals and other surfaces, extremely toxic to the environment, and unsafe for humans to handle or inhale its fumes.

## FRIGHTENING FACTS

According to the Center for Disease Control and Prevention (CDC):

- ▶ **More than two million Americans develop antibiotic-resistant infections each year, resulting in 23,000 deaths**
- ▶ **Norovirus is the #1 cause of acute gastroenteritis outbreaks worldwide.**
  - Norovirus affects about 21 million Americans annually
  - Leads to over 2 million outpatient/ER visits or hospitalizations, and 800 deaths
  - Touching a contaminated surface, then touching your mouth, spreads 61% of diarrhea or vomiting outbreaks.
  - There is no vaccine to prevent norovirus infection.
- ▶ **As of March 2015, half the estimated 25,000 individuals infected with Ebola virus ultimately died.**
- ▶ **The common cold, Rhinovirus, is the main reason the majority of our population misses school or work every year.**



IT'S TIME FOR A **PROACTIVE SOLUTION**  
TO INFECTIOUS DISEASE PREVENTION—  
ONE THAT IS **QUICK, SAFE AND EFFECTIVE.**

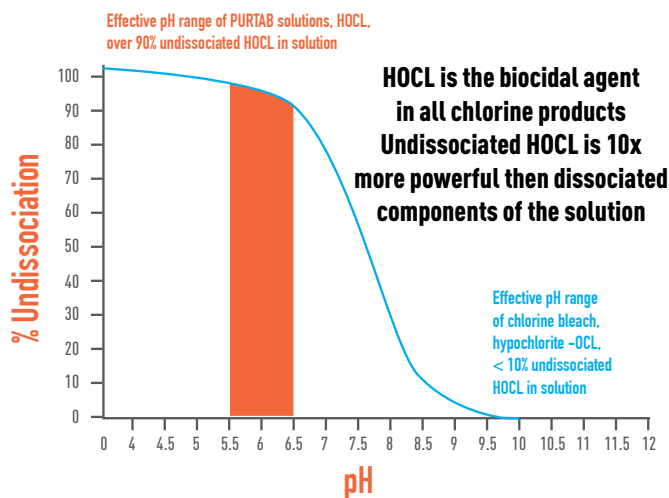


## AN OUNCE OF PREVENTION IS PRICELESS

Billions are spent in the war on infectious diseases every year. Proactive approaches have been hard to implement in the past but that is no longer the case. EarthSafe's revolutionary technology combines the right chemicals with the perfect tools, resulting in an easier, safer and more effective way to sanitize and disinfect, any time and anywhere. In the long run, this superior level of protection will **save millions of dollars in work hours and productivity and medical costs as well as save lives.**

### EarthSafe's Proactive Solution – PURTABS

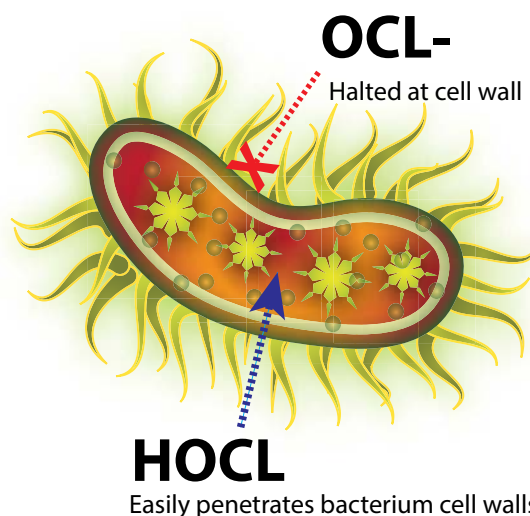
PURTABS is a sustainable, solid tablet form of Sodium Triclosene, NaDCC, which dissolves readily in water to become a powerful hypochlorous acid (HOCL) that is versatile enough, depending on concentration, to use as a food surface sanitizer and a hospital grade disinfectant. If you aren't aware of the many benefits of HOCL, it's time you were. This multi-tasking, EPA registered sanitizer/disinfectant, when coupled with green cleaning formulations and the right application technology, **literally SOLVES the time constraints and process problems of daily cleaning and sanitizing / disinfection.** PURTABS is changing the janitorial/custodial industry for the better.



### The Science Behind EarthSafe's PURTABS (NaDCC → HOCL)

The active agent in PURTABS is sodium troclosene (NaDCC). While it does provide chlorine in the form of hypochlorous acid (HOCL) for sanitizing and disinfection purposes, it is not a hypochlorite like chlorine bleach. The chemistry and mode of action of NaDCC is significantly different, producing a solution that is stable once diluted, particularly in the presence of organic contaminants.

Studies show that HOCL has four times the anti-microbial killing power of hypochlorites (-OCL). **It is believed that this is due to the fact that HOCL is very similar to the structure and molecular size of water and is electrically charged**—thus allowing it to penetrate cell walls as easily as water. Conversely, the hypochlorite ion is electrically charged and thus has a harder time getting through the cell wall.





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In the U.S., infectious diseases are associated with an economic burden of over \$120 billion



Last year, Americans missed more than 70 million workdays because of the flu



Antibiotic resistant infections cost Americans \$20 billion in direct medical costs and \$35 billion in lost productivity



The projected loss of earnings due to the illness was approximately \$16.3 billion annually



Reports estimate that employers lost \$10.4 billion in direct costs during each flu season



60 million school days are lost each year to colds and flus in the U.S.

What are infectious diseases costing?

## 3 Tablet Sizes Kill a Multitude of Microbes

PUR TABS multi-purpose tablets have many various uses and are available in 3 tablet sizes for easy mixing and precise dilution. PUR TABS targets the most virulent microbes that affect every sector, from no-wipe sanitization for restaurants to high-powered hospital grade disinfection, and everything in between.



## PUR TABS Versatility

Kill Claims	Concentration	Dilution
Food contact surface sanitizer (No Rinse)	100 ppm	(1) 0.3g tab / 1qt (1) 3.3g tab / 2.5 gal (1) 13.1 tab / 10 gal
Hospital grade disinfectant claims (Bleach alt.) Cold & flu virus* (including H1N2) Salmonella & Staph.	538 ppm	(6) 0.3g tb / 1 qt (1) 3.3g tab / 2 qts (1)
Bloodborne pathogen, Herpes & Polio Norovirus, MRSA & Ecoli HIV & Hep B claims Many Animal pathogens	1076 ppm	(11) 0.3g tabs / 1 qt (1) 3.3g tab / 1 qt (1) 13.1 tab / 1 gal
C. Diff 10 minute claim	2153 ppm	(2) 13.1 g tabs / 1 gal
C. Diff spore 4 minute claim	4306 ppm	(4) 3.3 g tabs / 1 qt (4) 13.1 g tabs / 1 gal

# THE FUTURE OF INFECTION CONTROL IS HERE AND IT IS SUSTAINABLE AND SAFER.

PURTABS is designed to be the most convenient and cost effective option to ship, store and apply a less toxic, more potent disinfection solution. Protecting environments and people from harmful pathogens has never been easier or more affordable.



Concentrated PURTABS tablets **weigh 95% less** per case than liquid concentrate sanitizer/disinfectant. Making it **more ergonomic** to lift, and uses less plastics and cardboard, creating less solid waste.



PURTABS **saves money** on shipping, storage space and overall chemical cost.



PURTABS is **less-toxic** and **less-corrosive** to humans, materials and the environment.



PURTABS **weighs 7x less** than traditional liquid concentrate sanitizers/disinfectants, so **you pay 7x less** in shipping costs. PURTABS takes up less square footage, saving money on storage.

## Unique advantages of Earthsafe PURTABS NaDCC/Hypochlorous acid (HOCL) vs Chlorine bleach/hypochlorite (-OCL)

- Hypochlorous acid is **naturally produced** in our bodies by white blood cells and tears
- The CDC and EPA substantiate HOCL **kills pathogens up to 50 times better** than chlorine bleach
- Undissociated HOCL has **4 times the anti-microbial killing power** of -OCLs
- PURTABS kills mold and mildew, plus eliminates and **controls odors**
- PURTABS is **versatile**, from a no-rinse food contact sanitizer, to a hospital grade disinfectant with a **4-minute C Diff kill rate**
- PURTABS is a **broad-spectrum disinfectant** with more kill claims than other sanitizing alternatives, while also being more cost effective
- PURTABS neutral pH is surface, **human and environmentally-friendly**.
- Testing on metal substrates prove PURTABS is **50% less corrosive** than bleach, plus won't harm fabrics or substrates with normal use
- pH at neutral levels ensures the more **effective bactericide**, HOCL, remains dominant in the solution
- Diluted PURTABS is **stable in closed containers for 7 to 30 days**, depending on ppm of Free Available Chlorine (FAC); while chlorine bleach lasts only for hours once diluted
- PURTABS are **cost-effective and sustainable**, costing less to ship and store

# BEAT BACTERIA WITH A POWERFUL SANITIZER / DISINFECTANT IN A COMPACT TABLET.

## Biocidal Efficacy of Purtabs

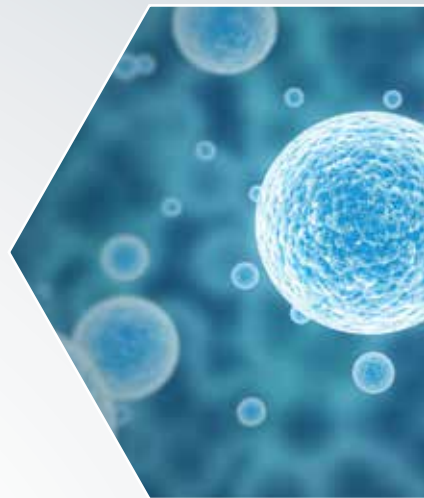
EarthSafe PURTABS has the power to kill 99.999% of Bacteria and eradicate C Diff Spores in 4 minutes! PURTABS proactive effervescent sanitizing and disinfecting tablets are effective against a broad range of microorganisms on pre-cleaned, nonporous, inanimate surfaces, including:

**Salmonella enterica**  
**Staphylococcus aureus**  
**Pseudomonas aeruginosa**  
**Klebsiella pneumoniae**  
**Staphylococcus epidermidis**  
**Escherichia coli O157:H7**  
**Staphylococcus aureus –**  
**MRSA & GRSA**  
**Carbapenem resistant Klebsiella**  
**Pneumoniae**  
**Acinetobacter baumannii**  
**Poliovirus type 1**  
**Herpes simplex virus type 1**  
**Hepatitis A virus**  
**Hepatitis B virus**

**Clostridium difficile**  
**Influenza virus H1N1**  
**Respiratory syncytial virus**  
**Canine Parvovirus**  
**Newcastle Disease Virus**  
**Pseudorabies**  
**Canine Distemper Virus**  
**Human Immunodeficiency Virus Type 1**  
**Feline Calicivirus**  
**Norovirus**  
**Enterococcus faecalis Vancomycin**  
**Resistant,**  
**Trichophyton mentagrophytes**  
**Mycobacterium bovis (TB)**

## Sectors for Use

Daycares, Schools, Universities • Hospitals, Nursing Homes, Medical and Dental Facilities • Gyms, Health Clubs, Spas and Salons • Restaurants, Food Service and Kitchens • Ambulances and First Responders • Office Buildings, Shopping Centers and Grocery Stores • Theaters, Stadiums, Amusement Parks • Hotels and Cruise Ships • Residential Homes • Kennels, Stables and Veterinary Clinics • Agriculture and Farming • Beverage and Food Processing Plants • Transportation Vehicles, Trains, Buses and Airlines • Marine, Fishing Boats, ferries, Personal Boats



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## A SMALL TABLET THAT PACKS THE POWER TO PREVENT INFECTIOUS DISEASES

There are many outstanding differences between EarthSafe's PUR TABS and common sanitizer/disinfectants, such as chlorine bleach, quats and other harsh chemicals, not the least of which are its efficacy and cost efficiency. This unique chemistry is less toxic and safe enough for daily use, yet powerful enough to kill dangerous microbes. It is proven to disinfect 99.999% of a wide variety of bacteria and viruses, including "super bugs" like MRSA and H1N1, without causing the mutation of other "super bugs."

**PUR TABS puts the power of disease prevention in your hands.**



### Saves Lives and Budgets

- Depending on the concentration, HOCL kills 99.999% of bacteria and destroys C Diff in 4 minutes!
- Mitigates the spread of infectious diseases and illnesses are stopped before they start
- Less sick days converts to higher productivity and lower financial losses



### More Versatile

- Emergency pathogen crisis can be addressed immediately even in an ambulance
- Safely sanitizes food contact surfaces without rinsing
- Can also become a heavy-duty disinfectant



### Safer and More Sustainable

- Shelf stable for 3 years
- User friendly and safer for humans and materials
- Less hazardous to the environment and less corrosive
- Easily transported and stored at a fraction of the cost of alternatives

**Revolutionary stabilized NaDCC tablet that forms hypochlorous acid (HOCL) when dissolved in water.**



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[www.earthsafeca.com](http://www.earthsafeca.com)