



Disinfecting Tablets – FAQ



Altra Disinfecting Tablets are NaDCC (Sodium DiChlor) tablets that dissolve readily in water to become a powerful hypochlorous acid (HOCl).

HOCl (NaDCC) has proven efficacy as a high-level broad-spectrum pH neutral sporicidal disinfectant that can be used facility-wide.

Altra Disinfecting Tablets combine safety, efficacy, and sustainability

ADVANTAGES

Kills Bacteria Present in Biofilm

The first chemistry with a registered kill claim against bacteria present in biofilm

Sporicidal

Kills *C. diff* in 4 minutes – List K

C. auris base off of CDC recommendation for List K or List P

pH Neutral, sporicidal disinfectant that will not dull or damage floor finish

Continuously Active

In a recent peer reviewed study¹, the tablet solution continues to kill these pathogens for 24 hours

Stable Chemistry

Has a two-year shelf life - much longer than other products

Stable in closed containers for 1 days after product dilution

Multipurpose

An effective broad-spectrum disinfectant and sanitizer

Covers a range of applications from food contact surface sanitizer to sporicidal disinfectant

Results in facility-wide sporicidal, results in consolidation of chemicals with neutral pH

EPA List N

Approved for use against SARS-CoV-2 (COVID-19)

Sustainability

Because NaDCC is a concentrate, no water is shipped with the product, lowering shipping costs

Delivers maximum efficiency at lower concentrations
100% Biodegradable

Reduce carbon footprint

Frequently Asked Questions

What is the chemistry in Altra Tablets?

The chemistry is sodium dichlor (NaDCC). It releases Hypochlorous Acid (HOCl) when dissolved in water.

Is this just bleach in a tablet form?

No, bleach is sodium hypochlorite (NaOCl). Altra disinfecting tablets are sodium dichlor (NaDCC).

When dissolved in water both NaDCC and bleach produce the effective disinfecting agent hypochlorous acid (HOCl). The difference in the two chemistries is what comes with the HOCl. NaDCC produces an organic molecule. Bleach produces Sodium Hydroxide (NaOH), more commonly known as caustic soda.

NaDCC is an organic chlorine donor that forms a use-solution with a mildly acidic to neutral pH of 6 to 7 when mixed with water.

Bleach forms highly alkaline use-solutions with pHs in the range of 11 to 12. It is a caustic soda and corrosive, and may present health risks through direct contact (especially with eyes and mucus membranes) and inhalation of dust.

NaDCC contains no caustic soda and the in-use diluted product may cause only temporary mild eye irritation if directly touching the eye. In concentrate it has an HMIS rating of 1/0/0 compared to bleach's 3/0/0 rating. In dilution it has an HMIS 0/0/0 to bleach's 1/0/0. Because there is no caustic soda produced with NaDCC, there is a significantly lower health risk.

How many Altra Disinfecting Tablets does it take to kill *C. diff*?

1 x 13.1g tablet per quart of water yields 4306 ppm – with a required contact time of 4 minutes

What is the shelf life of Altra Disinfecting Tablets?

Tablet – 2 years

Bucket/Disposable wipes – 1 day

Sealed container – 3 days

Are Altra Disinfecting Tablets a one-step cleaner/disinfectant?

Yes, at 4306 ppm the solution is a one-step cleaner/disinfectant (two steps required for *Clostridioides difficile* and blood-borne pathogens per the EPA standard requirement)

Why have I not heard of these tablets before?

The chemistry of NaDCC is an organic chlorine donor that has been around since the late 1950s. Medentech Kersia first formulated this into an effervescent tablet in the early 1980s, but its primary use was in drinking water treatment. In 2007 NaDCC was adopted by the United Kingdom National Health Services as the universal standard sporicidal disinfectant. Their adoption of NaDCC resulted in a reduction of *Clostridioides difficile* infection rates of over 75% over the next 8 years.

Does the Altra Disinfecting Tablet solution leave a residue on surfaces?

There is a slight residue after use that may be noticed on reflective surfaces. We recommend you rinse as needed, to eliminate any residue. To mitigate residue, do not oversaturate surfaces and use higher quality mops and tools for removal.

How long do Altra Disinfecting Tablets take to dissolve into water?

Depending on the tablet, 4-5 minutes. As it is dissolving, keep the lid off and the container open. It is best to use cold or slightly warm water to dissolve the tablets. Hot water is not recommended.

What makes Altra Disinfecting Tablets so special?

Altra Tablets have EPA registered claims against *Clostridioides difficile* spores in 4 minutes, bacterial biofilms in 4 minutes, and meet the OSHA Bloodborne Pathogen Standard and EPA's Emerging Viral Pathogen criteria for all viruses, including small, non-enveloped viruses (2c). The chemistry does not bind to the cloth used to apply it, causes no damage floors or finishes, and does not have a strong or unpleasant odor. This enables Altra Tablets to be used facility-wide, enabling customers to consolidate chemicals.

Are Altra Disinfecting Tablets effective against Biofilm?

A number of papers have been produced recently showing that up to 95 percent of normally dry surfaces in a hospital room have biofilm.² Up to 53 percent of those biofilms contain culturable multidrug resistant bacteria. The biofilm allows bacteria to survive on a surface for far longer than those not protected by biofilms. Many traditionally used disinfectants are largely ineffective against bacteria in biofilm. Altra Tablets have EPA registered kill claims for *Pseudomonas* and *Staphylococcus* showing a 7-log₁₀ reduction in bacterial concentration when they are protected by biofilm. This is important to note because bacteria that are contained in biofilm can still be transferred to hands and gloved hands and moved throughout facilities.

Can I use Altra Disinfecting Tablets in the pharmacy?

Altra Disinfecting Tablets can be used throughout hospitals including the Pharmacy Department. NaDCC chemistry is included in the USP 800 consensus statement, for both de-activating and de-contaminating.

"Oxidizing agents such as sodium dichlor (NaDCC) ...appear as close to universal deactivators as any readily available, easily used and affordable substances. These agents also have the added advantage of being highly effective disinfectants....Sodium dichlor (NaDCC) products will deactivate many HDs, not degrade surfaces, and act as an effective disinfectant."³

What is the Altra Disinfecting Tablets COVID-19 claim?

Altra Disinfecting Tablets can kill SARS-CoV-2 at a dilution of 1,076 ppm with a dwell time of 4 minutes.

Is the product biodegradable?

NaDCC is 100% biodegradable. It rapidly reduces in the environment to chloride and cyanuric acid. Cyanuric acid is degraded by microorganisms in natural environments to ammonium and carbon dioxide.

Do Altra Disinfecting Tablets work on floors?

There are very few disinfectants that can be used effectively on a floor. Some quats are slow acting and may bind to the mop or cleaning tool. Phenolics are not recommended due to safety concerns. Bleach breaks down the finish on the floor. Peracetic acid may not be compatible with the components in vinyl composite flooring. Altra Tablets allow you to disinfect the floor as either a hospital disinfectant or as a sporicidal disinfectant without damaging the floor. Most hospitals use a solution at 1,076 ppm, which requires a 10-minute contact time on floors.

What is the odor profile of Altra Disinfecting Tablets?

When you first make a solution with Altra Disinfecting Tablets, you may note a very mild swimming pool odor. This odor is weaker than the odor produced by bleach. The odor should not get any stronger, provided that you are not mixing the Altra Disinfecting Tablets with other chemicals, especially quaternary ammonium compounds (quats). This can happen inadvertently, such as when launderable microfibers are used with an Altra Disinfecting Tablet solution after they have been used with quats or when a floor has been treated with quats for many years prior to the use of Altra Disinfecting Tablets. Normally this odor will be short term and will subside after 3 or 4 uses of the tablets, as long as no additional quats are introduced into the process.

What about compatibility and damage to equipment?

Altra Tablet Solutions are pH neutral and have no caustic soda (like bleach) or acid (like PAA). Because of this, there is far less risk for corrosion to metal components. There is no alcohol or ketones to impact plastics and vinyl. While there may be some damage (even water can damage equipment over time), using bleach would cause ten times more damage. Several manufacturers have approved NaDCC based chemistry for use with their equipment, and any equipment that can be cleaned with a 10 percent solution of bleach can be cleaned with Altra Disinfecting Tablets.

Copper yellow metals and copper infused metals (EOS materials) can turn green and old poly carbonite can become clouded with repeated exposure.

What if I'm told they can only use bleach in the healthcare setting?

The CDC states that household bleach, while having a broad spectrum of antimicrobial activity, contributes to ocular irritation or oropharyngeal, esophageal, and gastric burns, is corrosive to metals in high concentrations (>500 ppm), may be inactivated by organic matter, may discolor fabrics, and releases toxic chlorine gas when mixed with ammonia or acid (e.g., household cleaning agents). The CDC further states that alternative compounds that release chlorine, such as sodium dichlor (NaDCC), are more advantageous in that they retain chlorine longer and may have a more prolonged bactericidal effect. Sodium dichlor tablets are stable. The microbicidal activity of solutions prepared from sodium dichlor tablets are greater than that of sodium hypochlorite solutions containing the same total available chlorine.⁴ For schools or daycare, the CDC further recommends the use of EPA registered disinfectants.⁵

What are the limitations of Altra Disinfecting Tablets?

Every chemistry has its limitations, however, those associated with NaDCC are far less than many other disinfectants and certainly less than any other sporicidal chemistry on the market.

Things to note:

- Do not use on bare unpainted copper. The metal will turn blue or green and develop a patina.
- Some non-colorfast cotton can have color removed, especially when exposed to sporicidal strength NaDCC solution.
- Do not mix with other chemistry, especially quats and other amines. You will get a strong odor.
- Repeated use on a floor may result in some hazing. This can be removed with either a dry buffer, a neutral cleaner, or a water rinse.
- Oversaturation with NaDCC solutions and materials such as microfiber cloths can result in some residue, which can be wiped off.

Are Altra Disinfecting Tablets compatible with disposable wipes?

Altra Disinfecting Tablets have been tested with melt blown polypropylene substrates. There have been no wipes tested that have binding concerns. The amount of liquid will vary due to absorbency or release, thickness and composition. Cellulose-based or poly-rayon biodegradable wipes are not recommended.

What are the approved application types?

Apply use-solution to pre-cleaned, hard, non-porous, inanimate surfaces with a mop, cloth, sponge, brush, wipe, foaming equipment, or mechanical sprayer to wet all surfaces thoroughly.

What is the appropriate water temperature for the Altra Tablet solution?

When used in hospitals, Altra Tablets should be dissolved in water that is less than 100-115 degrees Fahrenheit.

Footnotes:

1. Reynolds, Kelly A. "The Impact of a Continuously Active Disinfectant on Bacterial Surface Concentrations and Biofilm Growth" *InfectionControl.tips* (June 2021).
2. Hu, H. "Intensive care unit environmental surfaces are contaminated by multidrug-resistant bacteria in biofilms: combined results of conventional culture, pyrosequencing, scanning electron microscopy, and confocal laser microscopy" *Journal of Hospital Infection* 91, no. 1, (September 2015): 35–44.
3. USP "USP General Chapter <800> Hazardous Drugs— Handling in Healthcare Settings" USP-NF (2020).
4. Centers for Disease Control and Prevention "Disinfection & Sterilization Guidelines. Centers for Disease Control and Prevention" (May 2019) <https://www.cdc.gov/infectioncontrol/guidelines/disinfection/index.html>
5. Centers for Disease Control and Prevention. "How to clean and disinfect schools to help slow the spread of flu" Centers for Disease Control and Prevention (September 2021) <https://www.cdc.gov/flu/school/cleaning.htm>

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