

Reasoning and Approach To summarize the key benefits of Cogent One Health™

I analyzed the document for evidence of its advantages across healthcare, education, animal care, home, and retail settings.

The summary below highlights the most important benefits, supported by examples and explanations from the document. Key Benefits of Cogent One Health™

1. Removes 99%+ of Pathogens Without Harmful Disinfectants Cogent One Health™ physically removes bacteria and viruses from surfaces, preventing their transfer and reducing infection risk. Unlike conventional disinfectants, it does not leave behind residues that promote antimicrobial resistance.

Example: In healthcare, the QCT-3 validated wipe-dry system removes >99% of pathogens from medical equipment and high-touch surfaces and restores a natural non pathogenic microbiome.

2. Reduces Antimicrobial Resistance (AMR) By removing pathogens instead of killing them with chemicals, Cogent One Health™ avoids creating superbugs and drug-resistant bacteria.
3. Overuse of disinfectants is linked to increased AMR and hospital-acquired infections. Example: Switching to Cogent One Health™ in hospitals supports infection control and minimizes the evolution of resistant pathogens.
4. Prevents Biofilm Formation Leaves a transparent barrier film that prevents bacterial adhesion and delays biofilm formation, which is a major cause of persistent contamination and resistance. Example: Surfaces cleaned with Cogent One Health™ are less likely to develop biofilms, improving hygiene in hospitals, schools, and animal care facilities.
5. Safe for People, Animals, and the Environment Neutral pH, non-toxic, and biodegradable formula is safe for use around children, patients, animals, and staff. It does not require hazard warnings and aligns with sustainability goals. Example: In schools and homes, Cogent One Health™ can be used daily without risk to health or the environment.
6. Versatile and Easy to Use Suitable for a wide range of surfaces including medical equipment, touchscreens, mirrors, counters, railings, and animal enclosures. Integrates easily into existing cleaning routines. Example: Can be applied with wipes, squirt bottles, or sprays, and wiped dry with microfiber or disposable cloths.
7. Supports Healthier Spaces and Sustainability Promotes safer environments in hospitals, clinics, schools, retail spaces, and homes. Reduces reliance on harsh

chemicals and supports green initiatives. Example: Retailers and educational institutions benefit from clean, shiny surfaces and reduced chemical exposure.
Summary Table of Benefits by Segment:

Segment Key Benefits

Healthcare Removes pathogens, reduces AMR, prevents biofilm,

Education Safe for children, no toxic residues, supports well-being

Animal Care Prevents resistance, safe for animals, eco-friendly

Home Effective, non-toxic, residue-free, versatile

Retail Safe for customers/staff, shiny surfaces, sustainable Cogent One Health™ offers a scientifically validated, safer, and more responsible cleaning solution that protects people, animals, and the planet while supporting infection control and sustainability.

Scientific Consensus on Disinfectant-Induced Bacterial Resistance

Journal of Hospital Infection 151 (2024)

Effect of prolonged exposure to disinfectants in the antimicrobial resistance profile of relevant micro-organisms: a systematic review

Conclusion: Adaptation phenomena related to disinfectant exposure were documented and development of cross-resistance to antimicrobials was verified for several species, including *Streptococcus* spp., *Klebsiella pneumoniae*, *Acinetobacter baumannii*, *Staphylococcus aureus*, *Pseudomonas aeruginosa*, and *Candida* spp. Changes associated with disinfectant exposure also influenced biofilm formation, colony morphology, and efflux pump activity three relevant determinants of loss of antibiotic efficacy.

The scientific community agrees that prolonged or improper exposure to chemical disinfectants fosters the development of both disinfectant tolerance and clinical antibiotic resistance. This phenomenon occurs when bacteria are exposed to sublethal doses—concentrations too low to kill them but high enough to trigger defensive evolutionary adaptations, which occur on surfaces treated the concentration of disinfectant rapidly decreases on surfaces and after drying creating selective pressure leading to Antimicrobial Resistant Pathogens.

The Disinfectant-Antibiotic Link

Research identifies a high risk of cross-resistance, where a bacterium's defense against a cleaning chemical also protects it against medical drugs. This transition occurs through several biological pathways:

- * **Efflux Pump Overexpression:** Bacteria develop molecular pumps that physically eject toxins. Because these pumps are often non-specific, they can expel both disinfectants (like Quats) and antibiotics (like Ciprofloxacin) simultaneously.
- * **Genetic Mutation and Exchange:** Chemical stress increases the rate of horizontal gene transfer. This allows resistance genes to spread rapidly between different bacterial species in the same environment.
- * **Biofilm Protection:** Persistent chemical exposure encourages bacteria to form protective colonies known as biofilms. These structures are up to 1,000 times more resistant to treatment than individual bacteria.
- * **Structural Alterations:** Bacteria may thicken their cell walls or change their membrane permeability to prevent chemicals and medicines from entering the cell.

High-Risk Chemicals and Scenarios

Daily repetitive disinfectant application without a rinsing / removal step increases the likelihood of creating "superbugs"

- * Sub-inhibitory Dosing: This is the primary cause of resistance. It happens when products are allowed to remain on surfaces the active concentration rapidly declines as the surfaces dry and continue to decline after surfaces dry.

- * Widespread Overuse: Utilizing hospital-grade disinfectants for low-risk tasks creates a permanent "selection pressure" that kills weak bacteria and leaves only resistant strains to multiply.



COGENT
ENVIRONMENTAL SOLUTIONS

**COGENT ONE HEALTH GENERAL PURPOSE
CLEANING TO PROTECT PUBLIC HEALTH**

REMOVES 99%+ OF PATHOGENS WITHOUT HARMFUL DISINFECTANTS THAT LIKE ANTIBIOTICS THEIR PERSISTENT RESIDUES CREATE ANTIMICROBIAL RESISTANT PATHOGENS THAT IN 2019 CAUSED 1.4 MILLION DEATHS AND CONTRIBUTED TO 5 MILLION MORE DEATHS.



**A SAFER CLEAN FOR
PEOPLE, ANIMALS &
THE PLANET**

Safer Cleaning for Healthcare Environments



Remove Pathogens Without Using Disinfectants that like antibiotics create pathogens resistant to our life saving drugs.

Cogent One Health™ Cleaning is a scientifically validated, non-disinfectant cleaning solution designed for healthcare environments where safety, hygiene, and long-term surface protection matter.

Why Healthcare Professionals Choose Cogent One Health™

- Wipe and Dry Cleaning, removes 99 % + of bacteria and viruses and prevents transfer using QCT-3 wiping test.
- Leaves behind a transparent barrier film that prevent bacterial adhesion and delays biofilm formation.
- Deep cleaning process effective against aged organic contamination.
- Reduce the risk of antimicrobial resistance by physically removing pathogens instead of killing them.
- Neutral pH, non-hazardous formula safe for medical equipment, touchscreens, stainless steel, mirrors, and high-touch surfaces
- Supports healthier spaces in hospitals, clinics, long-term care homes, and medical offices
- Canadian-made technology aligned with One Health principles for people, animals, and the environment
- Reduces reliance on harsh disinfectants and toxic residues
- Easy to use within existing cleaning routines, helping save time and support consistent outcomes

A Smarter Approach to Daily Cleaning

Protect patients, staff, visitors, and the surfaces they rely on every day. Cogent One Health™ delivers safer, more responsible cleaning without Creating Antimicrobial Resistant Pathogens.

T: 705.434.4489

C: 705 434 8681

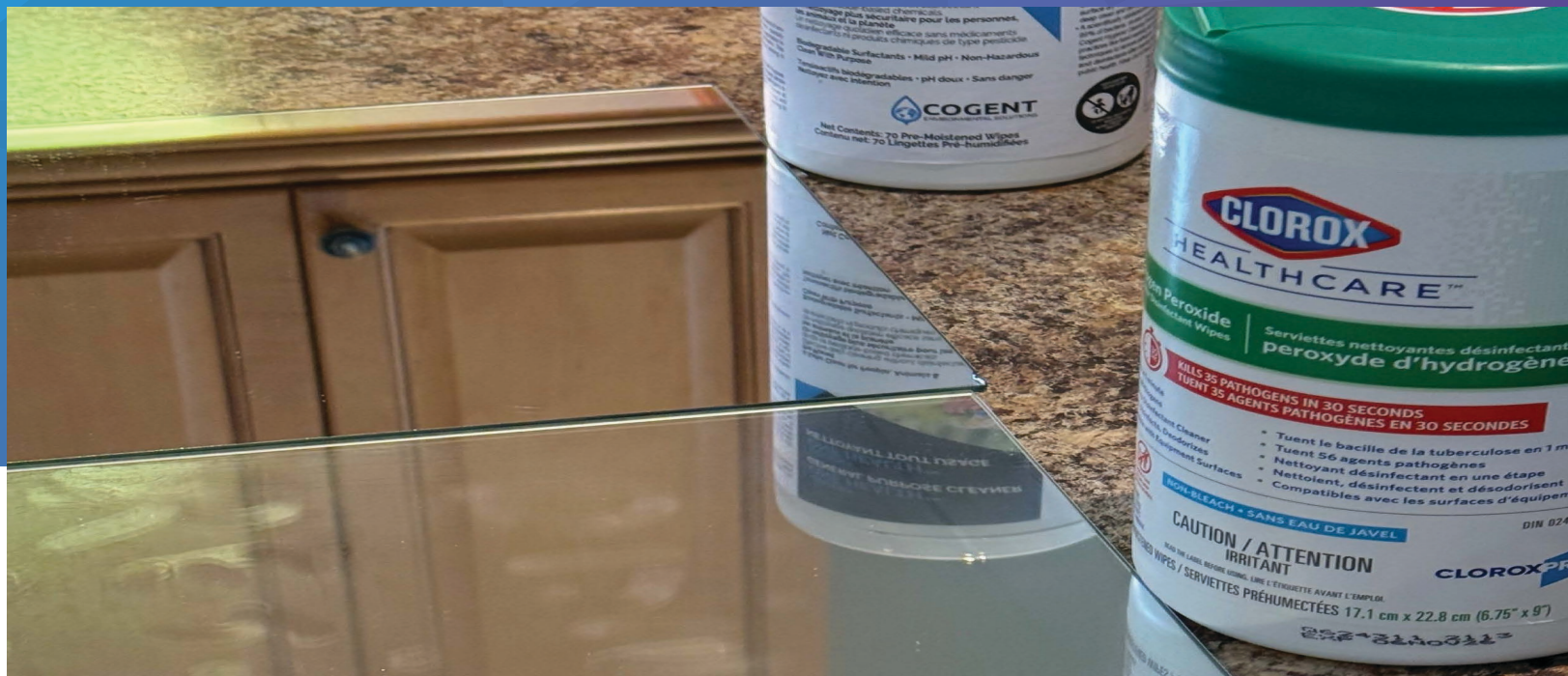
LEARN MORE

rochon@cogentenvironmental.ca



COGENT ONE HEALTH GENERAL PURPOSE CLEANING TO PROTECT PUBLIC HEALTH

STOP CLEANING and Disinfectant RESIDUES. START REMOVING PATHOGENS.
QCT-3 Validated "Wipe-Dry" System proven to remove >99% of bacteria and viruses without leaving corrosive chemicals and disinfectants on surfaces that promote biofilm growth and the development of Multi Drug Resistant pathogens that kill more than 1.4 million people annually and contribute to an additional 5 million



- The "Apply-and-Dry" Advantage:
- 1. SQUIRT/SPRAY or Wipe With Moistened Wipe With Our Sodium Phytate-powered solution dissolves the "glue" Biofilm Matrix holding biofilms to the surface.
- 2. WIPE-DRY: A clean dry, microfiber wicks the suspended pathogens deep into the cloth fibers, locking them away. Our cleaning solution picked up transfers its preservation properties to the microfiber discouraging large growth, biofilms and foul odours that are common on soiled cloths stored until they are laundered.
- 3 Cogent One Health General Purpose Cleaning . Fight AMR: Evolutionary Trap." By physically removing microbes instead of poisoning them. Stop the development of "Superbugs " switch to scientifically validated Cogent One Health General Purpose Cleaning Process Removes greater than 99% of bacteria and viruses and prevents transfer of pathogens to adjacent areas.

Clean with Purpose — Protect People, Animals, and the Planet!

9506-4 4 x 3.78 liters cs 9506-6 6 x 946ml cs 9506-12 70 count wipes
12 per case

Contact Information
Partner with Cogent Environmental Solutions
Michael Rochon
Tel: 705-434-4489
Cell: 705-434-8681
Website: cogentenvironmental.ca
rochon@cogentenvironmental.ca

Cogent One Health General Purpose Cleaning

Removes 99%+ of pathogens without harmful disinfectants

HEALTHCARE

Healthcare facilities demand reliable cleaning solutions that protect patients, staff, and visitors without contributing to antimicrobial resistance. Cogent One Health™ removes pathogens from frequently touched surfaces and non-critical medical equipment while reducing the reliance on harsh disinfectants. This approach supports infection control protocols, helps prevent biofilm formation, and contributes to a safer healthcare environment in hospitals, clinics, and long-term care facilities.



KEY BENEFITS:

- Scientifically validated cleaning process removes pathogens without encouraging antimicrobial resistance.
- Ideal for daily cleaning non-critical medical equipment, frequently touched surfaces, and washrooms.
- Formulated to Prevent biofilm formation. Disinfectants applied to surface after drying the active ingredients are rapidly reduced to sub inhibitory concentrations that multiple studies have confirmed biofilm growth when exposed to sub inhibitory disinfectants concentrations..



APPLICATIONS:

- Hospitals, clinics, long-term care facilities, and outpatient centers.
- Cleaning patient rooms, waiting areas, medical equipment, railings, and washroom surfaces.
- Apply to surface with moistened wipes or flip top squirt or spray and immediately wipe surface dry with microfiber cloth or absorbent dry disposable wiper.
- To deep clean allow surface to soak for two minutes before wiping surface dry. Validated process physically removes greater than 99% of bacteria and viruses tested and prevents transfer to adjacent areas.

WHY CHOOSE COGENT ONE HEALTH™ FOR HEALTHCARE?

- Daily cleaning protects patients and staff from antimicrobial-resistant pathogens.
- Switch to targeted use of disinfectants, to minimize bacterial evolution into superbugs.
- Supports infection control protocols with a safer, smarter cleaning solution. Contains biodegradable anionic and nonionic surfactants, common preservative to prevent contamination in storage and a natural chelating agent.
- Consider use in all regular wards and public spaces. Hospital wide use of disinfectants has proven to add to the number of Multi Drug Resistant Pathogens and increase the difficulty in treating hospital acquired infections.
- UK and Australia national health standards require daily cleaning with a neutral cleaner in regular wards.

A SAFER CLEAN FOR PEOPLE, ANIMALS AND THE PLANET

What is One Health Cleaning?

One Health Cleaning is an approach that protects not just surfaces — but also human health, animal well-being and the environment. It means cleaning effectively without relying on disinfectant drugs.



[Environmental cleaning to prevent hospital-acquired infections on non-intensive care units: a pragmatic, single centre, cluster randomized controlled, crossover trial comparing soap-based, disinfection and probiotic cleaning.](#)

Interpretation In non-ICU wards, routine surface disinfection proved not superior to soap-based or pro biotic cleaning in terms of HAI prevention.

[Environmental Research 267 \(2025\) 120708](#)

Co-selection of antibiotic and disinfectant resistance in environmental bacteria: Health implications and mitigation strategies. **Methods:** Air and surface samples were collected from seven large hospitals and analyzed to detect antibiotic-resistant bacteria (ARB). The resistance profiles of isolated ARB to various disinfectants were determined. **Results:** A high percentage (85%) of samples contained ARB. Alarmingly, 94% of isolated ARB exhibited resistance to at least one disinfectant, and 91% demonstrated resistance to three or more disinfectants, 14% where resistant to all 9 hospital disinfectants tested.

[Evidence universal use of disinfectants in intensive care units increases healthcare acquired infections \(HAI\).Lancet Microbe 2025](#) Staphylococcus epidermidis bloodstream infections in patients in ICU MRSE-BSI Hospital Acquired Incidence declined significantly from 10.4 cases per 1000 occupied bed days (OBD) to 4.3 cases per 1000 OBDs. by switching to targeted disinfection. Overuse of antibiotics and disinfectants is accelerating antimicrobial resistance. Remove disinfectant drugs from cleaning.

THE PROBLEM WITH CONVENTIONAL DISINFECTANTS

[Their Overuse is accelerating antimicrobial resistance. October 13 2025 United Nations Press Release in 2023](#) One in six infections worldwide were caused by antimicrobial resistant pathogens that are difficult and sometimes untreatable. [Around 36.5 % of hospital acquired infections involve antimicrobial resistance with a 58% greater risk of death than non resistant infections.](#) With an estimated 1.14 million deaths annually caused by ARB infections in healthcare and community settings.

Less attention has been given to the potential induction of multi drug resistant bacteria through exposure to disinfectants. The result demon-strated that dilute Bleach (280 ppm) exposure led to enhanced resistance of K.pneumonia to both dilute Bleach itself and five antibiotics. Community acquired drug resistant infections are a serious problem.



[Effect of prolonged exposure to disinfectants in the antimicrobial resistance profile of relevant](#)

[micro-organisms:](#) a systematic review Conclusion: Adaptation phenomena related to disinfectant exposure were documented and development of crossresistance to antimicrobials was verified for several species, including Streptococcus spp., Klebsiella pneumoniae, Acinetobacter baumannii, Staphylococcus aureus, Pseudomonas aeruginosa, and Candida spp. Changes associated with disinfectant exposure also influenced biofilm formation, colony morphology, and efflux pump activity three relevant determinants of loss of antibiotic efficacy.

705.434.4489 | COGENTENVIRONMENTAL.CA | CLEAN WITH PURPOSE

EDUCATION

Schools, universities, and childcare centers require cleaning solutions that protect students and staff while maintaining safe learning environments. Cogent One Health™ effectively removes pathogens from desks, chairs, railings, and washroom surfaces without leaving harmful chemical residues. Its non-toxic and biodegradable formulation makes it safe for daily use in education settings while supporting institutional sustainability and student well-being.



KEY BENEFITS:

- Removes pathogens from high-touch surfaces without harmful residues.
- Safe for use around children and staff, with non-toxic and biodegradable ingredients.
- Leaves surface clean and shiny, improving the learning environment.
- Overuse of disinfectants creates an increasing number of Drug Resistant Pathogens that can be life threatening.



APPLICATIONS:

- Schools, colleges, universities, and daycare centers.
- Cleaning desks, chairs, door handles, railings, washrooms, and common areas.

WHY CHOOSE COGENT ONE HEALTH™ FOR EDUCATION?

- Promotes a healthy and safe environment for students and staff.
- Reduces exposure to harmful chemicals, supporting student well-being.
- Environmentally friendly solution aligns with green initiatives in education.

ANIMAL HUSBANDRY

Animal care environments require cleaning products that protect both animals and handlers while maintaining hygienic facilities. Cogent One Health™ safely removes pathogens from animal enclosures, feeding areas, and equipment without harmful disinfectants. Its biodegradable, non-toxic formulation helps prevent antimicrobial resistance and biofilm formation, making it an environmentally responsible choice for veterinary clinics, farms, shelters, and pet care facilities.



KEY BENEFITS:

- Removes pathogens without harmful disinfectants, protecting animal health.
- Prevents bacterial resistance and biofilm formation in animal care facilities.
- Non-toxic and biodegradable, safe for animals and the environment.



APPLICATIONS:

- Veterinary clinics, animal shelters, farms, and pet care facilities.
- Cleaning animal enclosures, feeding areas, equipment, and washrooms.

WHY CHOOSE COGENT ONE HEALTH™ FOR ANIMAL HUSBANDRY?

- Ensures a clean and safe environment for animals and staff.
- Reduces antimicrobial resistance, supporting animal health and welfare.
- Environmentally sustainable solution for responsible animal care practices.

HOME USE

Cogent One Health™ General Purpose Cleaner is a scientifically validated cleaning solution designed to remove over 99% of pathogens without relying on harmful disinfectants. It is safe for people, animals, and the environment, making it ideal for home use.



KEY BENEFITS:

- **Effective Cleaning:** Removes 99%+ of bacteria and viruses, preventing their transfer to adjacent areas.
- **Non-Toxic Formula:** Contains biodegradable anionic and nonionic surfactants with a mild pH and common preservatives, ensuring safety for your family and pets.
- **Residue-Free:** Leaves no toxic residues, reducing the risk of bacterial resistance and biofilm formation.
- **Eco-Friendly:** Canadian-made technology that protects the environment while cleaning effectively.
- **Versatile Use:** Suitable for cleaning frequently touched surfaces, mirrors, counters, railings, door handles, sinks, toilets, floors, and even carpet stains.



APPLICATIONS:

Routine Cleaning: Apply to surface and wipe dry immediately.

Hygienic Cleaning: Apply to surface, keep wet for two minutes, and wipe dry for deep cleaning

Surface Compatibility: Ideal for all frequently touched surfaces in kitchens washrooms use on stainless steel, glass, mirrors, counters, railings, door handles, washroom surfaces, and carpets. Available in convenient wipes, 946 ml bottle use to squirt on surfaces or spray wipe glass and surface cleaning. Use for everyday cleaning.

Use to clean sensitive computer screens, and electronic remotes, smart phones damp wipe and wipe dry .Take care not to over wet surfaces and shut down power before cleaning.

WHY CHOOSE COGENT ONE HEALTH™ FOR HOME USE?

- **Safer Cleaning:** Avoid harmful disinfectants that contribute to antimicrobial resistance and superbug development.
- **Health Protection:** Promotes human health, animal well-being, and environmental safety.
- **Easy Application:** Apply to surfaces and wipe dry with microfibre or paper towel for a clean and shiny finish. or keep wet for two minutes, and wipe dry with a microfibre for deeper cleans .

RETAIL

Retail environments require effective cleaning that protects both customers and staff while maintaining a welcoming shopping experience. Cogent One Health™ provides a safe, non-toxic cleaning solution that removes over 99% of pathogens from high-touch surfaces such as checkout counters, shopping carts, display shelves, and railings. By avoiding harsh disinfectants, retailers can maintain clean, shiny surfaces while reducing chemical exposure and supporting sustainability goals.



KEY BENEFITS:

- Removes 99%+ of pathogens without harmful disinfectants .
- Safe for use on frequently touched surfaces like electronic touch screens, monitors and keyboards, counters, railings, door handles, and shopping carts.
- Leaves surface clean and shiny, enhancing customer experience.
- Non-toxic and biodegradable, aligning with sustainability goals.
- Non hazardous by WHMIS standard 2015 requires no caution or warning symbols. See SDS sheet



APPLICATIONS:

- Grocery stores, supermarkets, and retail spaces.
- Cleaning checkout counters, display shelves, shopping carts, and floors.

WHY CHOOSE COGENT ONE HEALTH™ FOR RETAIL?

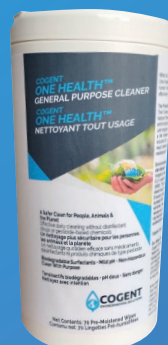
- Promotes a clean and safe shopping environment.
- Reduces exposure to harmful chemicals for customers and staff.
- Supports corporate sustainability initiatives.



9506-4 4 x 3.78L Case



9505-6 (6x946ml) Case



9506-12 70ct Wipe x 12 Case

Contact Information

Partner with Cogent Environmental Solutions

Michael Rochon

Tel: 705-434-4489

Cell: 705-434-8681

Website: cogentenvironmental.ca

rochon@cogentenvironmental.ca

Clean with Purpose — Protect People, Animals, and the Planet!

This summary sheet is tailored to highlight the unique benefits and applications of Cogent One Health™ General Purpose Cleaning for each market segment. Let me know if you'd like further customization!