CANADIAN INNOVATION **MADE IN CANADA**

Bringing Science to the Art of Cleaning
www.processcleaningsolutions.com

PCS PROCESS CLEANING SOLUTIONS
Bringing Science to the Art of Cleaning®

SAVING LIVES BY TAKING A ONE HEALTH APPROACH

Connecting human, animal, and environmental health

Use PCS Buffered pH Bleach to kill community-acquired healthcare-acquired Clostridioides difficile spores.

PCS Buffered pH Bleach Oxidizing Disinfectant Cleaner • DIN: 02548534

Active ingredient Sodium hypochlorite 0.26% w/w when packed

Clostridioides difficile is the leading cause of antibiotic-associated diarrhea in hospitalized patients. Almost 50% of cases are community-acquired.

SAVING LIVES BY TAKING A ONE HEALTH APPROACH.
Connecting human, animal, and environmental health

Clostridioides difficile can infect humans, dogs, cats, cows, pigs, and horses. It has been found in retail-packaged beef, pork, seafood, fruits, and vegetables. Up to five percent of our healthy population are asymptomatic carriers who shed infectious contamination into the environment, even though they are not sick.

It is a **spore-forming bacterium** that can survive periods of high cooking temperatures, refrigeration, and freezing.

Most cleaning and disinfecting chemicals are not effective against Clostridioides difficile spores.

Contamination is found in most environments and is spread through fecal matter. Areas of greatest concern in the home include kitchen and bathroom surfaces, frequently touched items, pet water and food bowls, and chew toys.

Use **sporicidal cleaning** in washrooms across all institutions, schools, and public spaces. Apply broadly in healthcare settings for discharge cleaning, washrooms, and outbreak situations. Use for cleaning and disinfecting during outbreaks of **all pathogens.**

THE BENEFITS

Kills HA (Healthcare-Associated) and CA (Community-Acquired) Clostridioides difficile spores. Saving lives by taking a One Health Approach. Connecting human, animal, and environmental health.

Hospital-grade disinfectant, broad-spectrum virucide & fungicide. Kills Clostridioides difficile spores.

Look for products with the Odour Control logo.

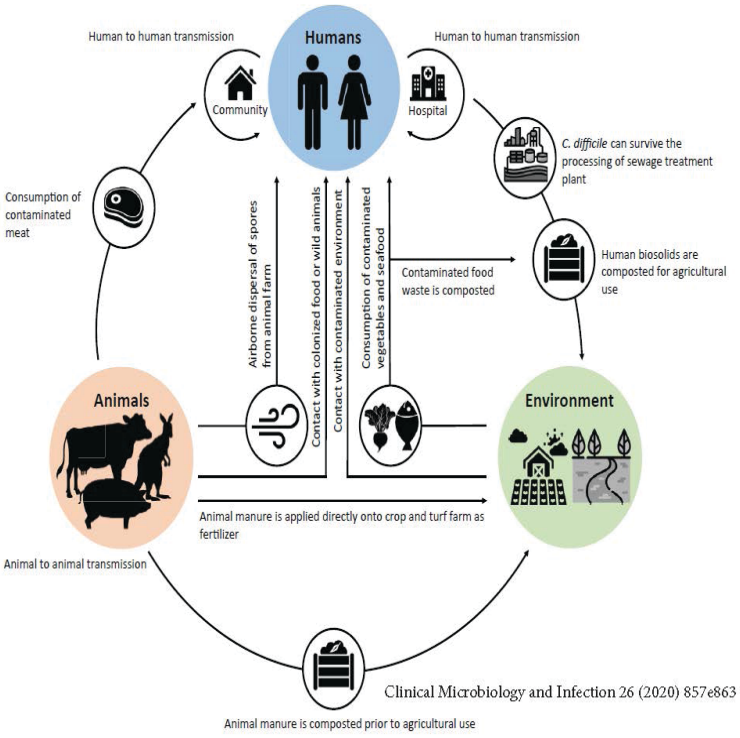
Bacteria, Virus, Fungus and C. diff Spores	Contact Time
Staphylococcus aureus (ATCC 6538)	1 Minute
Pseudomonas aeruginosa (ATCC 15442)	1 Minute
Feline Calicivirus (as surrogate for Norovirus)	1 Minute
Adenovirus Type 5	1 Minute
Trichophyton interdigitale (ATCC 9533)	1 Minute
Clostridioides di icile spores (ATCC #43598)	1-5 Minutes

Product Codes
#6283-6 — 6 x 946 mL per carton
#6290-6 — Sprayer attached pack per carton
#6283-4 — 4 x 3.78 L per carton
#6287-6 — Buffered pH Bleach Wipe Application Kit contains:
- 6 x 750 mL PCS Buffered pH Bleach
- 6 rolls of 70 wipes (17.8 x 30.5 cm) per carton

PCS Odour Control Process for PCS Sodium hypochlorite disinfectants. The process discourages the formation of significant amounts of hypochlorous acid and the release of vapors in the area being treated. It provides a pleasant scent instead of strong bleach odours.

GET IN TOUCH

T : 877.745.7277
E : service@processcleaningsolutions.com



Saving lives by taking a One Health approach

Connecting human, animal, and environmental health

Clostridioides difficile affects human, animal, and environmental health.

One Health Approach Involving a more dilute form of stabilized PCS Buffered pH Bleach Oxidizing Disinfectant Cleaner.

Contains 0.26% sodium hypochlorite. DIN: 02548534. Hospital-grade disinfectant. Broad-spectrum virucide and fungicide. Kills Clostridioides difficile spores

Directions for Use:
Use PCS Apply-and-Damp-Wipe or Wipe-Dry process.

Validated 1 minute cleaning process Exceeded European EN 17846:2023 standard for wiping C. difficile spores. The standard requires. **LINK** disinfectants pass a 4 field wiping test demonstrating 4 log efficacy. and low transfer to additional surfaces. Products meeting this requirement provide evidence of efficacy of the combined physical wiping and chemical inactivation.

Modified EN 17846:2023 Quantitative Carrier #3 wiping Test. **Link** Adding wiping reduced the time required to decontaminate Clostridioides difficile spores with soil load from 5 minutes to 1 minute.

PCS Apply-and-Damp-Wipe or Wipe-Dry Process
Use to kill and remove bacteria, viruses, fungi, Clostridioides difficile spores, and biofilm residues, and to prevent pathogen transfer and regrowth.

Select a disinfectant effective against bacteria, viruses, fungi, and Clostridioides difficile spores. Give procurement preference to products that provide additional test data combining physical removal and chemical inactivation, such as the Modified European Standard EN 17846:2023 for wiping C. difficile spores and minimizing transfer.

Saving lives by taking a One Health approach
Connecting human, animal, and environmental health.
Clostridioides difficile affects human, animal, and environmental health.

Community-acquired Clostridioides difficile poses a health threat that requires urgent attention. It is time for a One Health process to decontaminate environmental surfaces in healthcare, institutions, schools, veterinary clinics, animal husbandry, processing facilities, retail environments, and at home.

PCS Buffered pH Bleach Oxidizing Disinfectant Cleaner is approved for use in all locations.

European Union Risk Assessment Report – Sodium Hypochlorite
"Summary of environmental degradation of sodium hypochlorite. In water, in the sewer, and during sewage treatment, the degradation of hypochlorite is modeled by Vandepitte and Schowanek, and the concentration is calculated to drop down to zero within a few minutes after release into the sewer."

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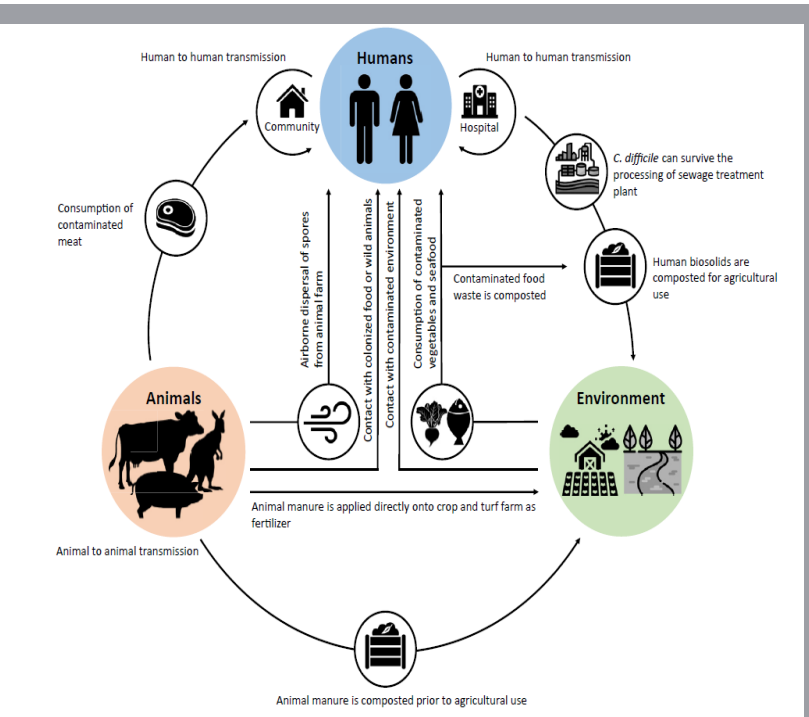

Fig. 2. Transmission of *Clostridium difficile*.

SAVING LIVES BY TAKING A ONE HEALTH APPROACH

Connecting human, animal, and environmental health

PCS 250 Apply and Dry Daily Cleaning Apply to surface and wipe dry. To remove community-acquired and healthcare-acquired Clostridioides difficile spores and prevent transfer

PCS 250 Oxidizing Disinfectant Cleaner DIN: 02314843

Active ingredient Sodium hypochlorite 0.025 %

Clostridioides difficile is the leading cause of antibiotic-associated diarrhea in hospitalized patients. Almost 50% of cases are community-acquired.

SAVING LIVES BY TAKING A ONE HEALTH APPROACH
Connecting human, animal, and environmental health.

Clostridioides difficile can infect humans, dogs, cats, cows, pigs, and horses. It has been found in retail-packaged beef, pork, seafood, fruits and vegetables.

Up to Five percent of our healthy population are asymptomatic carriers that shed infectious contamination into the environment even though they are not sick.

It is a **spore-forming bacterium** that can survive periods of high cooking temperatures, refrigeration, and freezing.

Most cleaning and disinfecting chemicals are not effective against Clostridioides difficile spores.

C. diff contamination is found in most environments. Use PCS 250 Apply and Dry cleaning daily.

Be prepared for outbreaks. Use PCS Buffered pH Bleach **Sporicidal Disinfecting Cleaning** in washrooms in public spaces. Apply broadly in healthcare settings for discharge cleaning, washrooms, and outbreak situations.

Use for cleaning and disinfecting during outbreaks in most environments.

THE BENEFITS

- Removes HA (Healthcare-Associated) and CA (Community-Acquired) Clostridioides difficile spores.
- Saving lives by taking a One Health approach. Connecting human, animal, and environmental health.
- Daily Apply and Dry cleaning to prevent spreading Clostridioides difficile spores.
- Look for products with the Odour Control logo.

Bacteria,Virus and C. Diff Spores Apply and Dry Removal	
Staphylococcus aureus (ATCC 6538)	100% no transfer
Serratia marcescens (ATCC 13880)	100% no transfer
Murine Norovirus (MNV-RVB 651)	100 % no transfer
Clostridioides difficile spores (ATCC435598)	99.95% no transfer

Product Codes
5908-6 6 x 946 ml x 6 per case
5908-4 4 x 3.78 liter per case

PCS Hygienic Microfiber 10 inch x 10 inch 18 grams per cloth, 300 per case. Damp cloth can trap and hold /clean large amount of area. MF300-Blue, MF300 Green, MF300- Pink and MF 300-Yellow

PCS Odour Control Process for PCS Sodium hypochlorite disinfectants. The process discourages the formation of significant amounts of Hypochlorous acid and the release of vapors in the area being treated. It provides a pleasant scent instead of strong bleach odours.

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PCS QCT 3-9 VALIDATED CLEANING PROCESS

Reduces hospital pathogenic organic soil more effectively than most currently used hospital cleaning and disinfecting processes.

SAFE

- Neutral pH low concentration product is safer for equipment and staff.
- Endorsed and certified by the Envirodesic™ Certification Program for Maximum Indoor Air Quality™ and minimum environmental health impact.

EFFECTIVE

- Cleaning to a scientifically validated standard.
- PCS validates its recommended environmental surface decontamination processes with CREM Co Labs newly developed third tier of the Quantitative Carrier Test Method (QCT-3) to assess decontamination of high-touch environmental surfaces (HITES) with the incorporation of field-relevant wiping.
- Maximize physical removal by wiping and use the minimum amount of chemical.

ENVIRONMENTALLY RESPONSIBLE

- PCS Neutral pH solutions form equilibrium of 50% hypochlorous acid and sodium hypochlorite which are effective at very low concentrations.
- When combined with our validated wiping process health care facilities can reduce staff and environmental exposure of cleaning and disinfecting chemicals in many cases by 95%. This also reduces health care, institutions and most public facilities discharge of toxic chemicals into the environment through the release of waste water.
- Removal of hospital pathogens does not require high concentrations of chemicals with high alkali or acid pH values.
- Easy to use process that saves time.

MATERIALS REQUIRED

- PCS microfibre cloths laundered with PCS Oxidizing Laundry Detergent.
- PCS 7548 pump sprayer filled with diluted Neutral pH PCS Oxidizing Cleaning, disinfecting and or Sanitizing Solution
  * Pre-moistened microfibre cloths or wipes

PCS QCT- 3- 9 VALIDATED CLEANING PROCESS

- Apply to surfaces to be cleaned, apply from cleanest to dirtiest.
- Take clean dry folded PCS microfibre or equivalent absorbent disposable cloth and wipe surfaces dry moving from cleanest surfaces to dirtiest.
- Suitable for use as instructed on commonly touched surfaces and equipment in health care and public spaces.
- Once PCS microfibre or absorbent cloth becomes saturated replace with dry cloth.

*Remove gross organic soil prior to cleaning

Vegetative Bacteria (S. aureus and S. marcescens)
Average CFU per square centimetre

	CFU/cm2			Percent		Average Percent	
Product	Control	After Wiping	Transfer	Reduction	Transfer	Reduction	Transfer
Apply & Dry Test 1	**27,000**	**0**	**0**	**100**	**0**	**100**	**0**
Apply & Dry Test 2	**35,000**	**0**	**0**	**100**	**0**		

C. difficile spores
Average CFU per square centimetre

	CFU/cm2			Percent		Average Percent	
Product	Control	After Wiping	Transfer	Reduction	Transfer	Reduction	Transfer
Apply & Dry Test 1	**27,000**	**3.57**	**0**	**99.99**	**0**	**99.95**	**0**
Apply & Dry Test 2	**9,240**	**8.15**	**0**	**99.91**	**0**		

Murine Norovirus
Average PFU per square centimetre

	PFU/cm2			Percent		Average Percent	
Product	Control	After Wiping	Transfer	Reduction	Transfer	Reduction	Transfer
Apply & Dry Test 1	**4,333**	**0**	**0**	**100**	**0**	**100**	**0**
Apply & Dry Test 2	**18,386**	**0**	**0**	**100**	**0**		

Cleaning with pre-moistened disinfecting wipes or cloths transfer bacteria, viruses and C. difficile spores to clean surfaces.

Pre-moistened disinfectant wipes or microfibre cloths are the most common method of cleaning in health care environments. Cleaning the areas around patients, noncritical patient care equipment and washrooms with pre-moistened wipes or microfibre cloths remove soil bacteria, viruses and C. difficile spores.

What is not common knowledge, is the process of wiping surfaces with pre-moistened wipe or cloth in addition to removing pathogens the process inherently transfers bacteria, viruses and C. difficile spores to surfaces being cleaned.

Many published papers have reported the transfer of Norovirus from wiping surfaces with pre-moistened cloths. PCS testing using CREM.Co Quantitative Carrier Test Method number three QCT-3 also demonstrated transferring viruses to clean surfaces by wiping with pre-moistened wipes or cloths

Wiping with pre moistened wipes or microfibre cloths.
PCS CREM Co Quantitative Carrier Test QCT-3 Murine Norovirus

Product Used	Transfer PFU/cm2
Saline T Detergent MF transfer of Murine Norovirus to clean surface	7.67
Saline T Detergent MF transfer of Murine Norovirus to clean surface	8.49
PCS NPH 250 MF transfer of Murine Norovirus to clean surface	9.34
PCS NPH 250 MF transfer of Murine Norovirus to clean surface	7.64
Hydrogen Peroxide 0.5% Wipe transfer of Murine Norovirus to clean surface	8.49

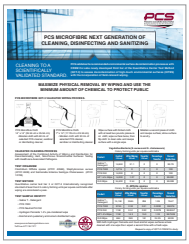
PCS testing using CREM.Co Quantitative Carrier Test Method number three QCT-3 in seven separate studies report the transfer of C. difficile spores to clean surfaces when wiped with pre-moistened disinfectant wipes or wiped with a pre-dampened microfibre cloth. All test where conducted with surfaces being wiped with two separate pre-moistened wipes or cloths.

PCS CREM Co Quantitative Carrier Test QCT-3 C. difficile

Product Used	Transfer CFU/cm2
Saline T Detergent transfer of C. difficile to clean surfaces MF	296
PCS 7000 transfer of C. difficile to clean surfaces MF	0.31
Hydrogen Peroxide 1.4% Wipe transfer of C. difficile to clean surface	15.3
Quaternary Alcohol Wipe transfer of C. difficile to clean surface	161
PCS MicroClean transfer of C. difficile to clean surface MF	116
PCS MicroClean followed by NPH 250 transfer of C. difficile to clean surface MF	14.7
PCS NPH 250 transfer of C. difficile to clean surface MF	2.33

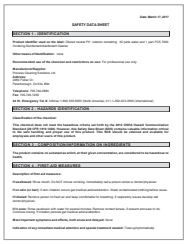
PCS QCT-3-9 Cleaning Process Apply Neutral PH PCS Oxidizing Disinfectant Cleaner & Wipe Dry	Transfer
CFU /cm2 Transfer of C. difficile to clean surface	0
PFU /cm2 Transfer of Murine norovirus to clean surfaces	0

REFERENCES & LINKS - CLICK THE LINKS BELOW TO DOWNLOAD EACH SUPPORTING DOCUMENT



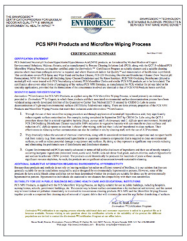
PCS MICROFIBRE NEXT GENERATION OF CLEANING, DISINFECTING AND SANITIZING

QCT-3 STUDIES



200 PPM SDS

QCT-3 - A PRELIMINARY FIELD-RELEVANT TEST TO ASSESS DECONTAMINATION OF HIGH-TOUCH ENVIRONMENTAL SURFACES: TESTING WITH STAPHYLOCOCCUS AUREUS



ENVIRODESIC CERTIFICATE- PCS NPH PRODUCTS AND MICROFIBRE WIPING PROCESS