

## Neutral pH PCS 250 Oxidizing Disinfectant/Disinfectant Cleaner

Use to clean frequently touched surfaces.  
Apply to surface and wipe dry.

**DIN: 02314843**

### ✓ SAFE

PCS non hazardous low concentration, of non caustic, non toxic, neutral ph sodium hypochlorite solution.

### ✓ EFFECTIVE

Proven in three separate hospital trials to lower residual microbial bioburden to less than 1 colony forming unit per square centimeter after cleaning as compared to current hospital cleaning practices that averaged 2.797 CFU per square centimeter. \*Industry leaders have proposed a standard of less than 1 CFU per square centimeter after cleaning.

Recent American Journal of Infection Control 47 (2019) 1375–1381 article reported generic sodium hypochlorite at 200 ppm demonstrated a 5 log reduction of C.difficile spores from contaminated cotton fabric with an 8 minute soak. Alkaline detergent, 640 ppm hydrogen peroxide, 300 ppm of Peracetic acid pH 3 and 300 ppm of Peracetic acid at pH 9 all had no effect on C.difficile spores.

Bacterial speciation is linked to increased host adaptation and transmission ability. a, Spores of C. difficile clade A are more resistant to the widely used hydrogen peroxide disinfectant than those of clade B.

### ✓ ENVIRONMENTALLY RESPONSIBLE

Leaves no toxic residue. Contains 95% less bleach solution.

Natural formulation contains no synthetic chemicals. Endorsed and certified by the Envirodesic™ Certification Program for Maximum Indoor Air Quality™ and minimum environmental health impact.



### ✓ CLEANING WITHOUT TRANSFERRING PATHOGENS•

PCS Apply and Dry cleaning results demonstrated significantly better removal of pathogens and prevention of transfer of pathogens to adjacent surfaces. Previous QCT-3 studies demonstrated wiping high touch surfaces with pre moistened wipes or cloths transferred Murine norovirus and C.difficile

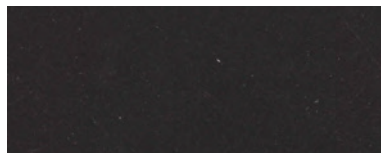
Removal of hospital pathogens does not require high concentrations of chemicals with high alkali or acid pH values.

## “Disinfectant Residues Should Be Removed”

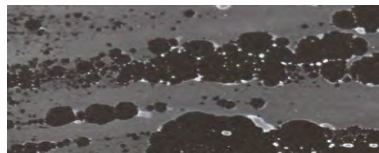
“Widely Used Benzalkonium Chloride Disinfectants Can Promote Antibiotic Resistance”

Biofilms on dry hospital surfaces

Adaptation of host transmission cycle during Clostridium difficile speciation



No  
Residue



Residue



\*CLEANING WITHOUT TRANSFERRING INFECTIOUS DOSE OF PATHOGENS

## Cleaning to a Scientifically Validated Standard

Testing PCS Apply and Dry cleaning process with CREM CO labs newly developed third tier of Quantitative Carrier Test Method(QCT-3 )to asses decontamination of high touch environmental surfaces(HITES) with the incorporation of field –relevant wiping.

PCS Apply and Dry results demonstrated significantly better removal of pathogens and prevention of transfer of pathogens to adjacent surfaces . Previous QCT-3 studies demonstrated wiping high touch surfaces with pre moistened wipes or cloths transferred Murine norovirus and C.difficile spores to clean surfaces , this occurred with all major classes of disinfectants.

QCT-3 Field relevant laboratory testing data needed to be confirmed under actual use conditions in the patient care environment.PCS contracted NSF International to do microbial audits pre and post cleaning in three separate health care facilities. A large teaching facility in Michigan, a new teaching hospital and a community hospital in Montreal Quebec .

Microbial auditing of the environment pre and post cleaning provides a very accurate measurement of the effectiveness of hospital cleaning practices.

Previous studies have recommended that cleaning should reduce aerobic plate counts to below 2.5 Colony forming units (CFU) per square centimetre for cleaned surfaces.

However many professionals currently recommend that cleaned surfaces should have less than 1 colony forming unit per square centimetre after cleaning.

In all three facilities surfaces where sampled pre and post cleaning and two of the three hospitals in addition to aerobic plate counts samples were also analysed for presence of C.difficile spores.

Samples were taken in multiple rooms for multiple days with hospitals current cleaning process. Staff where then trained on how to clean using PCS Apply and Dry process. Testing pre and post cleaning were again taken in multiple rooms and days.

### PCS Apply and Dry Process

PCS low concentration, of non caustic, non toxic, neutral ph sodium hypochlorite solution Applied to surface by spray, pre moistened wiper or microfibre cloth and immediately wiped dry with PCS microfibre cloth.

Cleaning to a scientifically validated standard of less than 1 CFU per square centimetre on average is possible using PCS Apply and Dry process. Better cleaning equals fewer outbreaks. The use of disinfectants potent enough to kill spores like C. difficile should be limited to outbreaks and discharge cleaning of special pathogens, they are no longer needed for everyday cleaning of the health care environment.

### Cleaning to Protect Public Health.

#### Reports - Download PDF to access hyperlinks

[Assessment of the Combined Activity of Spray and Wiping for Decontaminating Hard, Non-Porous Environmental Surfaces: Testing with Coronavirus 229E \(ATCC VR-740\)](#)  
[Assessment of the Combined Activity of Spray and Wiping for Decontaminating Hard, Non-Porous Environmental Surfaces: Testing with Healthcare-Associated Pathogens](#)  
[Assessment of the Combined Activity of Spray and Wiping for Decontaminating Hard, Non-Porous Environmental Surfaces: Testing with Mouse Norovirus \(MNV\) as a representative Healthcare- Associated Pathogen](#)  
[ACC Analysis of 146 samples C. difficile analysis of 72 post-cleaning samples](#)  
[ACC Analysis of 111 samples with NSF International](#)  
[ACC and Clostridium difficile Analysis of 195 total samples evaluating University Hospital's current Sporidical Disinfection Procedure and PCS' Cleaning Process with NSF International Approved Hard Surface Disinfectants and Hand Sanitizers](#)

#### 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		

#### Human Respiratory Coronavirus 229E (ATCC- VR-740)

	Total PFU per platform			Percent		Average Percent	
Product	Control	Contaminated	Transfer	Reduction	Transfer	Reduction	Transfer
Apply & Dry Test 1	13,778	0	0	100	0	100	0
Apply & Dry Test 2	127,777	0	0	100	0		

#### Results

Average hospital colony forming units (CFU) Pre and Post cleaning existing processes

	Pre CFU	Post CFU
1. Community Hospital medical ward 60% isolation patients Daily cleaning with hydrogen peroxide disinfectant cleaner	6.33	3.18
2. Michigan Teaching Hospital daily sporidical cleaning	10.9	4.61
3. New teaching hospital daily cleaning with Quaternary disinfectant cleaner	4.12	0.601

#### Results

Average hospital colony forming units (CFU) Pre and Post cleaning  
PCS Apply and Wipe Dry Process

	Pre CFU	Post CFU
1. Montreal Community Hospital	3.91	0.60
2. Michigan Teaching Hospital	10.9	1.53
3. New Teaching Hospital Montreal	7.84	0.263

	Pre CFU	Post CFU
AVERAGE OF THE THREE HOSPITALS CURRENT CLEANING PROCEESS	5.01	2.797
AVERAGE OF THE THREE HOSPITALS PCS Apply and Dry Process	7.55	0.798
No C. difficile spores where detected in any of the samples tested.		