



PCS TORAYSEE™ PROGRAM FOR HEALTH CARE

Toraysee™ cloth a proven technology with years of successful use currently used in greater than 1000 health care facilities and clinics in Japan



Toraysee™ cloth a single cloth can be used all day to repeatedly clean and disinfect frequently touched surfaces and equipment.



Toraysee™ is a cloth that specializes in the removal of organic materials and other dirt and washing without the use of chemicals.



In the cleaning of medical equipment and instruments, priority is given to the “washing” process (removal of organic materials and dirt).

PCS INTRODUCTION OF TORAYSEE™ DAMP CLEANING PROCESS INTO OUR HEALTH CARE PROGRAM HAS MANY BENEFITS

- Synergistic cleaning and disinfecting with PCS 5000 Oxidizing Disinfectant Cleaner
- Reduced chemical damage to sensitive equipment
- Safer method of using potent sporicidal disinfectants

Reduced impact on the environment. One Toraysee™ cloth can prevent the wasteful discharge of thousands of single use pre-moistened wipes.

MICROBIAL-CONTROL TREATMENT PROVIDES HYGIENE AND PEACE OF MIND

What is microbial-control treatment?

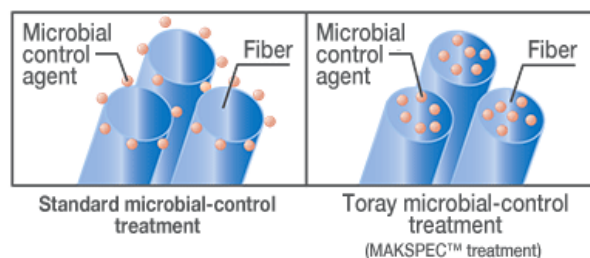
Microbial-control treatment is a treatment that aims to control microbial growth on the cloth's fibres.

Microbes targeted by microbial-control treatment

Test method JIS L 1902 Liquid culture absorption method	
Tested microbes	Specific applications
Staphylococcus aureus	○
Klebsiella pneumoniae	○
Methicillin-resistant Staphylococcus aureus	○

☒ Evaluation criteria: Antibacterial activity value > Control cloth multiplication value
 *Comparison between antibacterial/antifouling value and control cloth multiplication value

Mechanism of microbial-control treatment



Compared to ordinary treatment, in which the microbial-control agent adheres to the outside of the fibers, with Toray's microbial-control treatment (Makspec®), the microbial-control agent infiltrates the fibers, thus sustaining the microbial-control effect.



TORAYSEE™ PCS 5000 OXIDIZING DISINFECTANT CLEANING PROCESS AND COST OF USING ONE TORAYSEE™ PER DAY.



PROCESS

Materials

- Small oblong or square container with lid
- 250 mls of PCS 5000 Oxidizing Disinfectant/Disinfectant Cleaner
- Toraysee™ cloth
- Bucket with rinse water

PROCEDURE

- Add 250 mls of PCS 5000 to container add Toraysee™ cloth and check lid is secure, ensure container has work place label

To clean and disinfect with Toraysee™ cloth

- Remove lid from container
- Squeeze out liquid from Toraysee™ cloth
- Wipe over surfaces with damp Toraysee™ cloth

How to reuse

- Rinse cloth with water squeeze out liquid
- Replace cloth in PCS 5000 Oxidizing Disinfectant Cleaner
- PCS 5000 Oxidizing Disinfectant Solution disinfects Toraysee™ and saturates cloth for next use

To clean delicate or chemically sensitive surfaces

- Remove Toraysee™ from PCS 5000 Disinfectant solution
- Squeeze out liquid
- Rinse cloth in water and squeeze out liquid from cloth
- Wipe delicate surfaces or equipment with damp Toraysee™

These processes can be used for prolonged periods of time but common practice is to rinse Toraysee™ cloth at the end of use for the day, empty and rinse the container. Water Rinse Toraysee™ after use for the day squeeze excess liquid from cloth and allow to air dry.

- Toraysee™ Antimicrobial finishing process has proven to discourage microbial growth on fibres even after 60 hospital laundering cycles.
- Dampened with water only Toraysee™ has demonstrated the ability to remove greater amounts of ATP, bacteria and viruses than pre-moistened disinfectant wipes and split microfibre cloths.
- Toraysee™ after soaking in 1 % sodium hypochlorite for 5 weeks removed 99.6% of soil as compared to 99.5% before treatment. Demonstrating Toraysee™ maintained excellent removal of organic soils even with prolonged presence of strong concentrations of sodium hypochlorite.

Cost of use		
Based on 50 use applications per day.		
Toraysee cloth cost based on sixty days of use.		
Cost per day	=	.20
Number of cloths used for sixty days	=	1
PCS 5000 use per day 250 mls	=	.74
Toraysee™ / PCS 5000 cost per day	=	.94
Cost per day 5990 • 50 12"x12" wipes per day	=	22.00
NUMBER OF WIPES USED IN SIXTY DAYS	=	3000
Cost per day 5987-6 • 7"x12" wipes per day	=	12.27
NUMBER OF WIPES USED IN SIXTY DAYS	=	3000
Bucket saturation of microfibre cloths 3 L	=	8.88
Cost of microfibre cloths 50 required launder cost + Cost of cloths	=	8.34
Number of cloths used sixty days	=	50
Split microfibre charged bucket system cost per day	=	17.22



PCS 5000 OXIDIZING DISINFECTANT/DISINFECTANT CLEANER

- Active ingredient sodium hypochlorite 0.5%
- Available in Canada only **DIN: 02360500**
- Hospital grade disinfectants with a 5 minute contact time to disinfect C.difficile spores
- PCS 5000 solution containing a blend of natural ingredients
- Purified water, Sodium chloride, Carbonates, sodium hypochlorite and sodium hydroxide as PH adjuster
- Contains no detergent surfactants, masking fragrances, silicates or other synthetic chemicals
- Buffered stable formulations with a three year shelf life.
- Sodium hypochlorite normally deteriorates rapidly with shelf life from date of manufacture of 11 months for some sodium hypochlorite products
- Using PCS 5987-6, 6060-6 or 5990 wiper kits insures wipes have the sodium hypochlorite concentration on the label when put into service
- PCS 5000 Oxidizing Disinfectant/Disinfectant Cleaner equal to 1 and 10 bleach solution recommended by public health officials more than any other disinfectant when outbreaks occur or new pathogens emerge

Quantitative Carrier Test # 3 (QCT-3): [Click here for full report](#)

The objective of this study was to: a. Conduct laboratory-based testing on the use of a disinfectant cleaner wipe using PCS 5000 (Sodium Hypochlorite 0.5% w/w) for the microbial decontamination of hard, non-porous environmental surfaces representing those found in healthcare settings. The aim here was to evaluate the efficacy of a cleaning/sanitizing process using a wipe with PCS 5000 cleaner.

SUMMARY OF RESULTS

Test Substance: PCS 5000 Oxidizing Disinfectant Wipe

Test Carriers 1 cm diameter disks of brushed stainless steel.

Dilution: PCS 5000 was tested as Ready-to-Use (RTU), No dilution was required.

Test Organism: Mixture of Clostridium difficile spores (ATCC 43598), Staphylococcus aureus (ATCC 6538) and Serratia marcescens (ATCC 13880)

Exposure Time: No exposure time was considered. The disks of each platform were transferred to neutralization solution immediately at the end of wiping.

Exposure Temperature: Ambient temperature (22±2°C)

Soil Load: In accordance with the ASTM standard E2197, a mixture of bovine mucin, bovine serum albumin, and yeast extract was used to give a total protein concentration equal to that in 5% bovine serum in test microbial suspension.



Neutralizer: PBST +0.3% Sodium thiosulfate

TEST SYSTEM

“Wipe” method, starting with the contaminated platform, both platforms were wiped in one step in a pre-determined manner (as instructed by manufacturer). The wiping was performed with one piece of Ready-to-Use Cleaner wipe, started from the contaminated platform back and forth twice to the end of transfer platform.

Constant pressure of 2-3 lbs was applied during wiping process.

A separate platform (transfer platform) was used to determine if, and how much, microbial contamination could be transferred to uncontaminated surfaces in the immediate vicinity.

Vegetative Bacteria (S. aureus and S. marcescens)							
Average CFU per square centimetre							
Product	CFU/cm2			Percent		Average Percent	
	Control	After Wiping	Transfer	Reduction	Transfer	Reduction	Transfer
5000 Wipe Test 1	25,000	0	0	100	0	100	0
5000 Wipe Test 2	25,100	0	0	100	0		

C. difficile spores							
Average CFU per square centimetre							
Product	CFU/cm2			Percent		Average Percent	
	Control	After Wiping	Transfer	Reduction	Transfer	Reduction	Transfer
5000 Wipe Test 1	3050	0	0	100	0	100	0.01895
5000 Wipe Test 2	1350	0	0.51	100	0.0379		

The total of three types of micro organisms							
Average CFU per square centimetre							
Product	CFU/cm2			Percent		Average Percent	
	Control	After Wiping	Transfer	Reduction	Transfer	Reduction	Transfer
5000 Wipe Test 1	29,000	0	0	100	0	100	0.00097
5000 Wipe Test 2	26,500	0	0.51	100	0.00193		

Conclusion using PCS process of supplying the PCS 5000 in kits keeping liquid and wipes separate until activated on site provided a potent moistened wiper that completely removed all of the vegetative bacteria and C.difficile spores with a one wipe process without allowing for a contact time.

“ Disinfectant residues should be removed.”

ABOUT TORAYSEE™

Toraysee™ is a cleaning cloth made using Toray's ultra-fine fibres.



Reusable Toraysee™ cloth a single cloth can be used all day to repeatedly clean and disinfect frequently touched surfaces and equipment.



Toraysee™ cloths are currently used in more than a thousand health care facilities and clinics in Japan.



In the cleaning of medical equipment and instruments, priority is given to the "washing" process (removal of organic materials and dirt).



Toraysee™ is a cloth that specializes in the removal of organic materials and other dirt and washing without the use of chemicals.

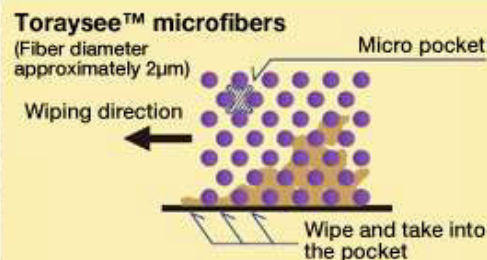
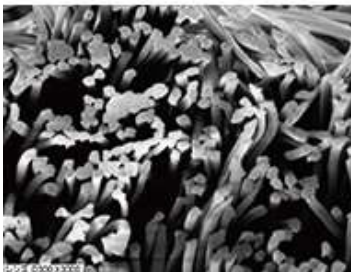


It can be used wet or dry according to requirements, and can also be impregnated with disinfectant.

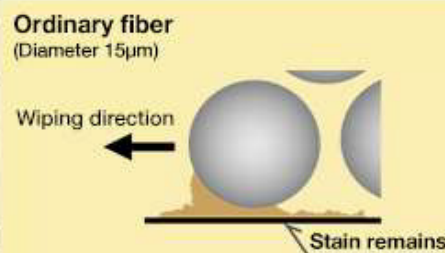
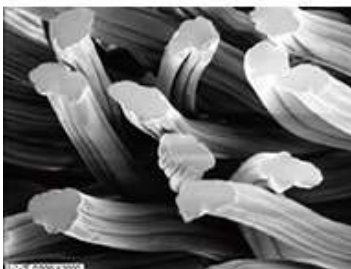
WIPING MECHANISM OF TORAYSEE™

Cleaning the touched surfaces : CONTACT POINT

Toraysee® for CE



Conventional cleaning cloth (ordinary fibers)



Toraysee™ has ultra-fine (2 µm) fibres arrayed at high densities. Even if the first fibre were to leave some oil film behind, the next fibres will be sure to pick it up.

The greater fibre density also creates Micro Pockets that act as efficient reservoirs of the wiped contaminant preventing transfer and recontamination of other surfaces.