PCS

PROCESS CLEANING SOLUTIONS

Bringing Science to the Art of Cleaning™

ITS ALL ABOUT THE PROCESS

EVIDENCE BASED CLEANING

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WWW.PROCESSCLEANINGSOLUTIONS.COM

THE 4 PILLARS OF THE PCS PROGRAM

1. CLEANING TO PROTECT PUBLIC HEALTH

PCS is committed to protecting public health by cleaning properly without disinfectants and validating the results through ATP monitoring.

Visibly clean surfaces are not necessarily a good indication of organic debris and microbial contamination.

Depending on the type of surface and the process used cleaning with antimicrobial cleaners and relying on visual cleanliness alone provides a false sense of security since organic debris and microbial contamination can still survive.

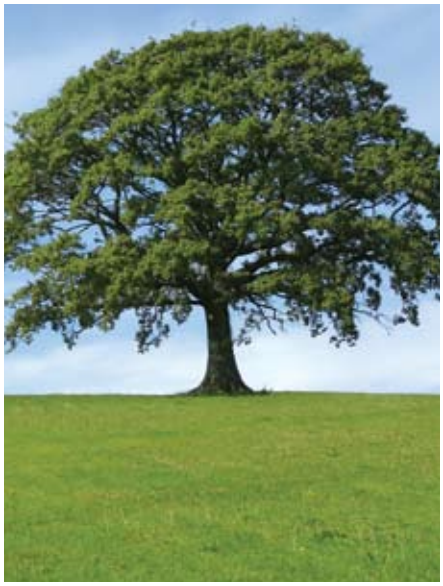
ATP (adenosine triphosphate) is present in all living cells, using an ATP meter we measure these levels. High ATP levels are a good indicator of poor hygiene while low ATP levels are an excellent indicator of good hygiene. PCS brings scientific testing to the cleaning process.

2. CLEANING TO PROTECT THE MOST SENSITIVE AMONG US

PCS protects those adversely affected by organic or chemical contamination including chemically sensitive individuals, children, the elderly and hospital or chronic care patients.

Our products are all natural and they contain no volatile ingredients or added scents. They effectively remove organic contamination without depositing toxic chemical residues. (Such residues can be more hazardous than the organic contamination they are intended to remove).

All non-disinfectant PCS products are independently certified by the Envirodesic™ Certification Program. Envirodesic™ is an independent organization that certifies products for maximum indoor air quality, minimum environmental impact and sustainability, including the suitability or use around chemically hypersensitive individuals.



3. CLEANING TO PROTECT THE ENVIRONMENT

Simply put, our products do not add chemical contamination to either the indoor or outdoor environment. Synthetic detergents like surfactants have a prolonged impact on aquatic and bacterial life ours do not.

All PCS products are formulated with the following four core principles:

- No synthetic chemicals
- No volatile ingredients
- No surfactants
- All ingredients are listed on the label

4. CLEANING TO PROTECT THE SPREAD OF ANTIBIOTIC RESISTANT BACTERIA

We maximize the removal of organic microbial contamination by physically removing it from surfaces using processes that prevent spreading bacteria from cleaning.

Current practices for protecting public health involve the use of disinfectants or disinfectant cleaners capable of destroying both beneficial and harmful bacteria. This practice is not environmentally sustainable as it is known to contribute to the further development of drug resistant bacteria.

In January of 2009 the European Scientific Committee on newly identified health risks stated the use or misuse of certain active substances in biocidal products may contribute to the increased occurrence of antibiotic resistant bacteria in both humans and the environment.

THE PCS APPROACH TO DISINFECTION CLEANING

AT PCS WE:

- **CLEAN WITH SAFER CLEANING PRODUCTS**
- **USE A VALIDATED CLEANING PROCESS**
- **RESTRICT THE APPLICATION OF DISINFECTANTS TO PRE CLEANED SURFACES AND ONLY WHERE REQUIRED**

UNDER THIS APPROACH OUR HOSPITALS, SCHOOLS INSTITUTIONS AND PUBLIC FACILITIES ARE CLEANER, SAFER, SLOWER TO PROMOTE THE EVOLUTION OF RESISTANT MICROBES AND QUITE SIMPLY HEALTHIER PLACES.

WHAT'S REALLY GOING ON TODAY, CLEANING USING A DISINFECTANT CLEANER THE PERCEIVED BENEFIT?

IT HAS ALWAYS BEEN CONSIDERED EASIER AND MORE CONVENIENT TO SIMPLY CLEAN WITH DISINFECTANT CLEANER, PEOPLE HAVE ALSO FELT THAT A DISINFECTANT PROVIDES THE ADDED SECURITY THAT SURFACES CLEANED ARE SAFE FROM MICROBIAL CONTAMINATION. IN FACT, NEITHER MAY BE TRUE AND CLEANING WITH A DISINFECTANT CAN CREATE A FALSE SENSE OF SECURITY.

WHY?

TO BE EFFECTIVE, DISINFECTANT INSTRUCTIONS MUST BE PROPERLY FOLLOWED.

It's very difficult to determine whether the level of soil on a surface is within the range the disinfectant can handle. It's also hard to determine if the surface has been left wet long enough for it to be considered disinfected. Typically some surfaces will dry prior to the full dwell time recommended by the manufacturer.

BACTERIAL RESISTANCE - JUST BREAK IT UP

Cleaning with disinfectants has the potential to create super-bugs, especially in hospitals where we have bacteria exposed to both antibiotics and disinfectants.

We all realize over-prescribing antibiotics can create super-bugs, especially when used incorrectly (e.g. not taking the full prescription as recommended, taking antibiotics for viruses like a cold or flu, which they have no effect on).

Like antibiotics disinfectants are used to treat or kill infectious bacteria, their overuse or misuse can't insure surfaces are safe even in our health care facilities. We know antibiotic resistant bacteria exist in our health care facilities and we have been inadvertently contributing to their evolution and expansion with our cleaning.

DISINFECTANTS ULTIMATELY GET DISCHARGED INTO OUR WASTE-WATER CREATING RESISTANT MICROBES IN OUR ENVIRONMENT

OCCUPATIONAL HEALTH EXPOSURES

Cleaning with safer products reduces health exposure to toxic disinfectants. Females in the cleaning industry are known to be at greater risk of having children with birth defects than most other occupations. Likewise, use of disinfectants has been associated with acquiring work-related asthma.

NATURAL BACTERIAL BALANCE

Bacterial resistance to antibiotics has evolved to the point that the effective use of antibiotics for treating infections is rapidly ending. Future defense against infectious disease will require evidence based cleaning practices. Synthetic organic detergent surfactants used today in cleaning and disinfecting products leave residues that disease causing bacteria can consume and use as a reproductive source of energy. In essence they feed the bacteria.

Organic acids such as lactic acid and their salts are our friends. They are used to increase the shelf life of many foods and are now replacing antibiotics in animal feed as they promote healthy bacterial growth and discourage growth of pathogens. Natural cleaners containing lactic acid without surfactants will play an important role in the future of protecting public health. Maintaining beneficial bacterial balance in nature is our best defense against disease causing bacteria by simply out competing them.

PROOF OF CLEANING EFFICACY

Its never been proven that disinfectant cleaners prevent infection better than simple detergents. Today we can scientifically validate cleaning instantly using ATP meters. This measures whether our cleaning processes has effectively removed soil and prevented the spreading of bacteria through cleaning.

THE ATP METER

ATP is adenosine triphosphate and it is present in all living cells. It's a key component in the "energy transfer system" within cells. The presence of high ATP levels is a good indicator of poor hygiene while low ATP levels are an excellent indicator of good hygiene.

Measuring ATP provides a rapid validation of the cleanliness levels of surfaces. We are able to measure our cleanliness levels before and after we clean providing an excellent barometer of how well our PCS cleaning process is performing and protecting public health. We can use the meter to establish cleaning processes, for staff training and to identify attached soils/biofilms which may require special deep cleaning and perhaps further testing.

PROCESS "A" CLEANING WITH MICROCLEAN

Micro Clean is an organic cleaner made up of Buffered Lactic Acid, Sodium Citrate, Table Salt, and Natural Food Color

Using PCS cleaning processes MicroClean eliminates the need to clean with disinfectants or synthetic chemicals reducing biological and microbial contamination on environmental surfaces minimizing our exposure to chemicals. It also reduces the impact disinfecting chemicals have in promoting the development of bacterial drug resistance.

MICROCLEAN WAS DEVELOPED BASED ON TWO SIMPLE FACTS:

• One step cleaning and disinfecting is often not achieving the results required in many facilities today.

• Using traditional detergents and disinfectants with microfiber cloths reduces the cloths effectiveness.

SOME DEFINITIONS:

1) Cleaning environmental surfaces is the physical removal of soil, including both biological and microbial contamination.

2) Disinfecting is the application of a registered disinfectant on a surface providing sufficient wet contact time to allow the destruction or inactivation of the target pathogens.

THE PROBLEM WITH DISINFECTANTS

1) Cleaning with disinfectants does not prevent the spread of bacteria

2) One step cleaning and disinfecting cannot be completely achieved as there is always some suspended soil that is not physically removed since a surface must be left wet in an attempt to achieve the claimed disinfecting contact time. This soil interferes with obtaining the desired disinfecting results.

3) If effective cleaning practices are followed the disinfecting process is compromised because the required contact time is not achieved under effective cleaning processes. This residual disinfectant contributes to the further development of resistant bacterial populations.

4) In addition, surfactant based cleaners and disinfectants work on the science of lowering the surface tension between the cleaning solution and the surface to be cleaned and disinfected. Microfiber cloths however work on the opposite principle, they increase surface tension in order to remove large quantities of soil and microbial contamination by scooping them up and attaching them to the microfibers

Because of this, surfactant based cleaners and disinfectants significantly reduce the benefit of cleaning with microfiber. This is especially true of quaternary surfactants which in addition to being used as disinfectants are also used as fabric softeners. Microfiber impregnated with surfactants also has reduced ability to release soils as they become absorbed by the attached surfactants shortening their life expectancy in the work place.

PROCESS CLEANING SOLUTIONS

THE SOLUTION - PCS MICROCLEAN

PCS Process MicroClean
Invented to enhance the cleaning power of microfiber by increasing friction.

PCS MicroClean contains no surfactants or synthetic chemicals,is non hazardous and when used with microfiber cloths it enhances the removal of organic soils including micro organisms to very low ATP levels and it extends the life of microfiber cloths.

For most cleaning dilute at 1:256 making it very economical. To prevent spreading contamination from cleaning use a PCS validated laundering or conditioning process.

USING PCS PROCESS MICROCLEAN YEILDS THE FOLLOWING BENEFITS:

- Reduces spreading of bacteria
- Enhanced cleaning of surfaces without the use or overuse of disinfectants or hazardous chemicals.
- When used as directed MicroClean leaves no chemical residue that is incompatible with commonly used disinfectants.
- It is a safer way of protecting our environment

Economical, convenient, safe and easily trained on as one simple dilution is used for most daily cleaning tasks including floor cleaning.

THE PCS DEFINITION OF CLEANING TO PROTECT PUBLIC HEALTH IS AS FOLLOWS:

"The removal of organic surface contamination to very low levels not visually apparent, validated by scientific measurement using ATP monitoring or microbial testing."

PCS PROCESS B - PROPER APPLICATION OF SANITIZER AND DISINFECTANT WHEN NECESSARY

PCS understands the importance of protecting public health by applying sanitizers in the food processing industries and disinfectants in health care facilities, institutions, schools and other work places.

Committed to separating cleaning from disinfection we follow "PCS Process A – Cleaning to Protect Public Health" for effective removal of organic soils, including microorganisms, leaving environmental surfaces safe to use.

The subsequent application of a sanitizer or disinfectant to environmental surfaces is an added insurance required by public health and infection control officials in specific situations.

We also understand the rapid expansion of multi-drug-resistant pathogens is in part caused by prolonged bacterial exposure to toxic chemicals including sanitizers and disinfectants. Bacteria can survive exposure to the sanitizers and disinfectants intended to destroy them for a variety of reasons including;

- Accurate dilution of disinfectant/sanitizer.
- Type of cloth used.
- Presence of soil.
- Contamination of solution.
- Application method.

PROCESS B IS AN EXTREMELY SIMPLE PROCEDURE INVOLVING THE FOLLOWING THREE BASIC STEPS

1) Place the PCS wipes in the dispensing bucket add two liters of disinfectant or sanitizer; thread first wipe through the lid and snap the lid on the bucket.

2) Always clean surfaces first using PCS Process A.

3) Pull up and remove PCS application wipe and apply to surface.

THE BENEFITS ARE:

- Safest method of applying disinfectants and sanitizers to environmental surfaces.
- Convenience.
- The combination of cleaning with PCS Process A followed by the application of a disinfectant or sanitizer using PCS Process B ensures environmental surfaces are safe.

PROCESS "C" CARING FOR YOUR MICROFIBRE

PCS Process MicroLaundry and PCS Microfiber Destainer are specially designed for washing microfiber clothes and mops. If your cloths are ineffective or contaminated, how can you possibly expect proper cleaning results?

Whether you wash manually or with machines PCS is the ideal choice for laundering microfiber and other cleaning mops. For institutional applications we can provide validated processes using the ATP meter.

DIRECTIONS FOR HOUSEHOLD MACHINE USE:

- Top loading machines - add two caps per load of MicroLaundry
- High efficiency machines - add one cap per load.
- For best results wash in hot water with an extra rinse cycle.
- Add 1 cup of PCS Destainer when wash temperature is below 140^{0}F

MANUAL WASHING OF MICROFIBRE AND FLOOR MOPS

Add 2 oz (1/2 cap) to 4 liters (1 Gallon) of hot water. Place cloths or mops in solution and allow to soak for at least two minutes. Wring out cloths or mops a few times, rinse with warm clear water until all loosened soil is removed and rinse water is clear.

Add 2 oz of PCS Microfiber Destainer when wash temperature is below 140^{0}F.

INSTITUTION PROGRAMS SHOULD BE CUSTIMIZED TO THEIR INDIVIDUAL SETTINGS

DISINFECTING IN THE LAUNDRY PROCESS

Requires the addition of Sodium Hypochlorite at 200 ppm or a wash temperature of 140^{0}F - 160^{0}F for 10 minutes.

PROCESS CLEANING SOLUTIONS

PCS PROCESS MICROCLEAN

5943-6 946 ml bottle
5942-4 4x 3.78 litre Dispenser package
5940-6 6 x 2 litre Dispenser package
5943-4 4 x 3.78 litre open stock

PCS PROCESS MICROLAUNDRY

5919-3 3.5kg bucket powder
5935-4 4 x 3 litre liquid
5936-18 18.9 litre liquid

PCS MICROFIBER DESTAINER

5944-4 4 x 3.78 litre containers
5944-18 18.9 litre

PCS SODIUM HYPOCHLORITE DISINFECTANT/DISINFECTANT CLEANER

DIN 02313278
Dilutes to 225 ppm of Hypochlorite
5900-6 6 x 2 litre closed loop dispenser package
5901-6 6 x 2 litre containers
5901-4 4 x 3.78 litre containers
5902-2 2 x 3.78 litre closed loop dispenser package

PCS 7000 OXIDIZING DISINFECTANT/ DISINFECTANT CLEANER

DIN 02314878
Dilutes to 225 ppm of hypochlorite

5905-6 6 x 2 litre containers
5930-4 4 x 3.78 litre containers

PCS 250 OXIDIZING DISINFECTANT/ DISINFECTANT CLEANER

DIN 02314843
Contains 250 ppm of Hypochlorite

5908-6 6 x 946 mL containers
5909-6 6 x 2 litre containers

PCS 1000 OXIDIZING DISINFECTANT/ DISINFECTANT CLEANER

DIN 02314851
Contains 1000 ppm of Hypochlorite

5906-4 4 x 3.78 litre containers
5906-6 6 x 946 mL containers
5907-6 6 x 2 litre containers

PCS OXIDIZING DISINFECTANT/DISINFECTANT CLEANER CONCENTRATE

DIN 02356082
Dilutes to 1000 ppm of Hypochlorite

5948-2 2 x 3.78 litre closed loop dispenser package
5948-4 4 x 3.78 litre containers

PCS 5000 OXIDIZING DISINFECTANT/ DISINFECTANT CLEANER RTU

DIN 02360500
Contains 5000 ppm of Hypochlorite

5955-4 4 x 3.78 litre containers
5955-6 6 x 946mL containers

PROCESS CLEANING SOLUTIONS

PCS SODIUM HYPOCHLORITE DISINFECTANT/DISINFECTANT CLEANER CONCENTRATE

DIN 02356090
Dilutes to 5000 ppm of Hypochlorite

5949-4 4 x 3.78 litre containers

PCS 7500 OXIDIZING DISINFECTANT/ DISINFECTANT CLEANER

DIN 02314886
Contains 7500 ppm of Hypochlorite

5904-6 6 x 946 mL containers

PCS 500 OXIDIZING DISINFECTANT/DISINFECTANT CLEANER WIPES

DIN 02360535
Contains 500 ppm of Hypochlorite

5952-6 premoistened towels

PCS 1000 OXIDIZING DISINFECTANT/ DISINFECTANT CLEANER

DIN 02360527
Contains 1000 ppm of Hypochlorite

5953-6 premoistened towels

PCS OXIDIZING DISINFECTANT/DISINFECTANT CLEANER CONCENTRATE

DIN 02318385
Contains 2500 ppm of Hypochlorite

5920-6 premoistened towels

PCS 5000 OXIDIZING DISINFECTANT/ DISINFECTANT CLEANER

DIN 02360519
5000 ppm of Hypochlorite

5950-6 premoistened towels

PCS NO RINSE SANITIZER/ CLEANER

5946-6 6 x 946mL squeeze n pour containers
5946-4 4 x 3.78 litre closed loop dispenser package
5947-4 4 X 3.78 litre open stock

PCS STABILIZED BLEACH

5945-2 2 x 3.78 litre closed loop dispenser package
5945-4 4 x 3.78 litre containers

ATP MONITORING SYSTEM

ATP200 / ATP Monitoring system
ATP2020 / ATP swabs (100 / Case)

PROCESS CLEANING SOLUTIONS

PROCESS GENERAL PURPOSE CLEANER LIQUID CONCENTRATE

5911-6 6 x 2 litre closed loop dispenser package
5912-6 6 x 2 litre containers
5931-2 2 x 3.78 litre closed loop

PROCESS NON ABRASIVE CLEANER

5913-6 6 x 946 mL containers

PROCESS CALCIUM LIME AND RUST REMOVER

5914-6 6 x 946 mL containers

PROCESS BOWL AND BATH

5915-6 6 x 946 mL containers

PROCESS HEAVY DUTY CLEANER

5916-6 6 x 2 litre closed loop dispenser package
5917-6 6 x 2 litre containers
5918-2 2 x 3.78 litre closed loop dispenser package
5916-18 18.9 litre

CHLORINE TEST STRIPS

5925-12 12 tubes of 100 strips 10 to 200 ppm available chlorine
5925-1 100 strips per container 1000 to 10,000 ppm

6 LITRE BUCKETS

629181 - Red
629182 - Blue
629183 - Green
629184 - Yellow

10 LITRE BUCKETS

629177 - Red
629178 - Blue
629179 - Green
629180 - Yellow

14 LITRE BUCKETS

629115 - Blue Charging Bucket

PROCESS CLEANING SOLUTIONS

R D PORTABLE DISPENSER

11685 Black, 1:50 Low Flow
11684 Burgundy, 1:256 High Flow

WALL MOUNT DISPENSERS

A variety of customized dispensers and cabinets for most professional needs.

PCS WALL BRACKETS

PCS Pail Holder Wall Bracket
PH-1 each

PCS Wipe Canister Wall Bracket
WMB120W each

MICROFIBRE CLOTHS

PCSMF-BL - Blue
PCSMF-R - Red
PCSMF-G - Green
PCSMF-Y - Yellow

PROCESS HIGH FRICTION DRY WIPES

856 6 rolls per case

PCS PROCESS CLEANING BUCKETS WITH LIDS

5923 4 buckets/case

PCS WET WIPES

5926 (4 packs x 90 Wipes per pack)

REFLEX MOPPING SYSTEM

06-0010 / Reflex Pro Squeegee
08-0050 / Reflex Microfibre Cloth
07-90011 Reflex Protool Beltbag

PCS CARPET CLEANER

5957-4 4 x 3.78 litre open stock

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PCS PROCESS MICROCLEAN

CCD 146I - Cleaning Product With Low Potential for Environmental Illness and Endocrine Disruption

THE ENVIRODESIC™ CERTIFICATION PROGRAM FOR MAXIMUM INDOOR AIR QUALITY™ & MINIMUM ENVIRONMENTAL IMPACT™