



Sanitaire™
Bio-Products

WASHROOM: WATER SAVING & ODOUR MANAGEMENT

1

CLEANING REGIME BIO-CLEANER

- Initial deep clean
- Good daily cleaning
- Annual deep clean

2

BIO-BLOCKS

- Fragrance
- Bacteria
- Cleaning Agents
- Conveyed into pipes when flushing takes place

FLUSHING REGIME

- Essential to clean the whole system
- Releases cleaning agents
- Promotes colony growth in pipes

3

ODOUR ISSUES?

BIO-BLOCKS

100,000,000 cfu/gm
pH 7.5
Conveyed with urine & flush water into P trap.
Placed every 45cm

PIPE BLOCKAGES?

BIO-CLEANER

Conc. 50,000,000 cfu/ml
pH 4.5
Applied diluted 1:15 to all surfaces (wet) as a spray.
May be rinsed off prior to re-spraying and left to dry naturally.
Likely 5-30ml of diluted cleaner per treatment.

TRIED OTHER SYSTEMS & FAILED? NEED A INTERGRATED SYSTEM?

BIO-REMEDICATION PROCESS - URINALS:



BIO-CLEANER

50,000,000 per cfu/gm
pH 7.5
Conveyed with urine & flush
water into P trap.
Placed every 45cm



TIMER/SOLENOID

to program 4-6 flushes per 24 hrs – this refreshes the surface and takes more bacteria from the blocks into the P- trap and moves the biomass into the pipes.



BIO-BLOCKS

100,000,000 cfu/gm
pH 7.5
Conveyed with urine & flush water into P trap.
Placed every 45cm.



BIO-SLEEVE

Seals odours
Releases bacteria

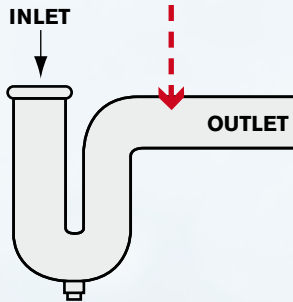


CLEANING P-TRAP

Biological cleaning takes place in this trap. The bacteria feeds on the waste build up and grows into a biomass

WATER SAVINGS: POTENTIALLY UP TO 95-98%

THE AVERAGE URINAL
IS ESTIMATED TO
USE ANYTHING UP
TO 150,000LTRS
PER YEAR



CLEANING PIPES

The biomass is moved into the pipes every time water is flushed carrying the bacteria which colonises the urinal pipes and degrade the body-solids, calcium and urine crystals keeping the pipes clear and free from odours - NATURALLY.

Beneficial Cleaning Regime:

1. One cleaner used
2. Biological cleaners are natural, 100% bio-degradable
3. Best odour management solution – it eliminates the source.
4. P traps and pipes are cleaned as part of the process
5. It's environmentally friendly

Copper Corrosion concerns:

- ** Urine normal pH range = 4-7
- ** Reduce the risk of microbial corrosion it is preferable to have the liquid travelling down pipes at a neutral pH = 6.
- ** Bio-Cleaner pH 4.5 will be neutralised by Bio-Block pH 7.5 when flushing takes placed.
- ** Since best evidence indicates Bio-Blocks and Bio-Cleaner bacteria slows corrosion effect.

INFORMATION SHEET - USE OF BIOLOGICAL CLEANING SOLUTIONS

"The right products combined with enough end-user education create an odour-control force to be reckoned with"....Seiche Sanders

How do they work?

Microbes or bacteria work by excreting specific enzymes (exoenzymes) and bio-surfactants to breakdown larger chains of nutritional, organic waste into more easily digestible, smaller pieces. Single celled organisms then use these pieces as food. They digest the waste and then reproduce from one cell into two cells via a process called binary fission. The process then repeats itself as long as the environmental conditions are conducive and there is a supportive nutrient source.

How quickly do they work?

Microorganisms are capable of doubling in population every 20-30 minutes under ideal conditions, such as in a fermenter where they are grown. Their population will increase logarithmically as long as these conditions can be maintained. This, however, is seldom the case in actual field conditions. As the microbes begin to work, they create and release enzymes and bio-surfactants that work immediately on organic food sources. Microbes, however, take longer and action will vary based on many factors. They don't work immediately, but they work consistently and effectively, as long as the environmental conditions needed are present.

If bacteria reproduce, why do I have to keep adding more?

While bacteria do reproduce rapidly, there is a constant stream of conditions that work against their growth such as the presence of bleach, sanitizers, disinfectants, anti-microbial hand soaps, and other toxins. Plus, the bacteria can be physically washed away in flow, exposed to extreme temperatures, pH spikes, agitation that loosens them from a surface and allows them to become ineffective.

What are the environmental conditions needed for the microbes to function?

Bacteria work well in many circumstances, given the time, and environment that is conducive to their growth. Temperature, pH, Nutrients and Oxygen (in most scenarios) as below:

- Moderate temperatures - range 10 - 38 Centigrade.
- Proper pH - not too acidic or too alkaline - range 5 - 9.5 on the pH scale.
- A water medium containing food (organic waste) for them to digest.
- Dissolved Oxygen (Minimum of 1) in sufficient quantities for the aerobic types that require it.
- Microbes require moisture to work. The floor is going to appear dry but there will be adequate moisture still there; if it's completely dry those microbes will die. However, new spores will be reactivated when they are again exposed to organic materials.
- When microbes are used they continue working well past the actual time the restroom is cleaned.
- These products are considered generally safer than chemical products and are thought to be more environmentally friendly than the average chemical cleaner. They use natural process to deal with the problem.