

*Go Green with Calfarme BIO TABS® and BIO PLUS®  
SAVE WATER, NO ODOR AND CLOG-FREE URINALS!*



WATERLESS  
**bio**  
*Tabs*®

*Safe, Effective and Environmentally-Friendly*



[www.calfarme.com](http://www.calfarme.com)

*BIO TABS® are designed for water-saving, odor control and trouble-free maintenance of all low-flush, conventional flushing urinal bowls/troughs and waterless urinal systems.*



BIO TABS® Blue Sphere  
BS-80, Size: 80 mm  
diameter



BIO TABS® Blue Dome  
BD-120SD, Size: 120 mm  
diameter



BIO TABS® Bug Sphere  
BS-130SD, Size: 130 mm  
diameter



BIO TABS® Blue Sphere  
BS-110SD, Size: 110 mm  
diameter



BIO TABS® Blue Dome  
BD-160MD, Size: 160 mm  
diameter



BIO TABS® Bug Sphere  
BS-200BD, Size: 200 mm  
diameter



*BIO TABS® and BIO PLUS® - consumable refills help the environment and save money by reducing, reusing and recycling.*



BIO PLUS®  
Waterless Urinal  
Cleaner/Deodorizer  
Spray – 500ml



BIO PLUS® Sachet  
Refill Concentrate –  
25ml



BIO PLUS® Multi-  
Purpose Biological  
Cleaner & Drain  
Maintainer –  
1,000ml

BIO TABS Refill Cartridge



BIO TABS®  
refill/cartridge for  
flushing urinal  
and control  
usage – available  
60 gram & 100  
gram



BIO TABS® Bug Sphere  
BS-130SD, 100 gram  
refill with soluble  
wrapper



*BIO TABS® are biologically active and work by breaking down organic matter, including that which is found in urine.*

## **The cause of urine odor:**

- Urine is largely comprised of UREA, which degrades into AMMONIA .
- It is this AMMONIA which when released into the atmosphere, contributes to the urine odor problems often found in washrooms.

## **How BIO TABS® work:**

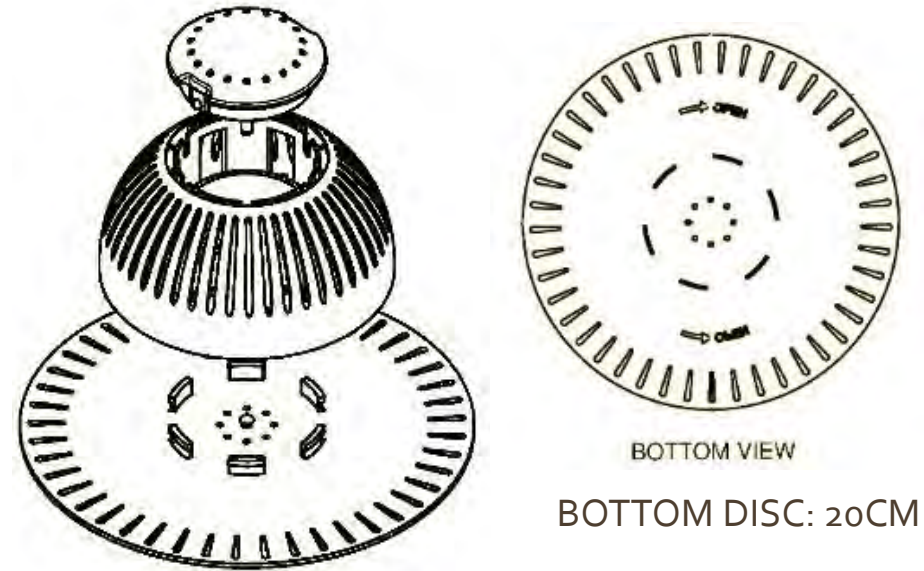
- Once BIO TABS® BIOLOGICALLY ACTIVE ingredients are introduced to organic waste such as urine and ammonia, they produce powerful enzymes which eliminate these compounds and release a refreshing scent maintaining a clean, fresh-smelling urinal.
- Compared to traditional urinal mats, urinal screens, PDCB urinal blocks and most waterless urinal systems that just mask urinal odors and clog up the drain, BIO TABS® break down all organic matter maintaining odor and clog-free urinals.



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*BIO TABS® allow you to reduce water usage by converting flushing urinals into low-flush or waterless fixtures instantly, without any additional capital costs.*



### **BIO TABS® BUG SPHERE:**

BS-200BD, Size: 200 mm diameter

Designed for maintenance of all low-flush, conventional flushing urinal bowls or troughs and no-flush waterless urinal systems with **wide urinal drain**.

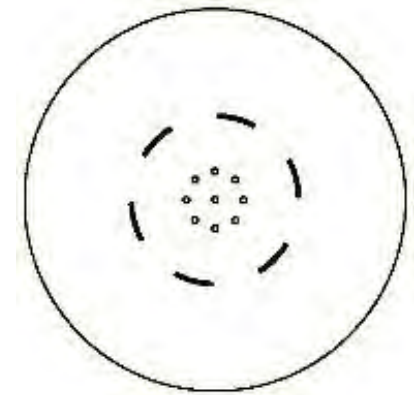
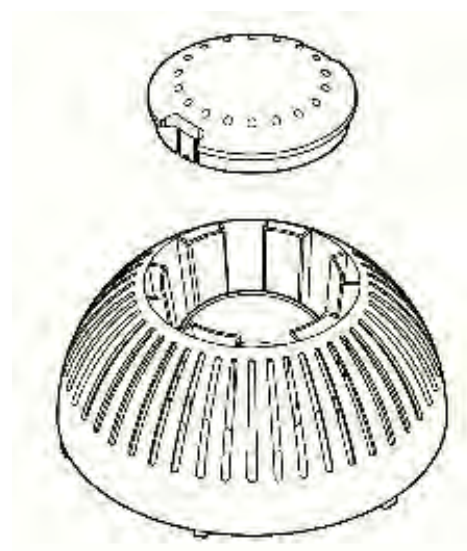
**BEFORE USE:** Turn clockwise to unlock the bottom disc

(see arrow direction at bottom of disc) Bottom Disc cover on urinal drain traps debris from going down the drain.



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*BIO TABS® are ecological and refillable when empty, thereby reducing maintenance costs and protecting the environment.*



BOTTOM DISC: 11CM

**BIO TABS® BUG SPHERE:**

BS-130BD, Size: 130 mm diameter

**TO REFILL:** Turn top cover to open and close cover. Remove BIO TABS® refill/cartridge control away for low-flush and no flushing urinals. Replace with BUG SPHERE 100 gram refill.

**REFILL SIZE:** 100 grams

**GUARANTEE:** 15,000 users



*BIO TABS® reduce maintenance costs by maintaining free flowing drains in conventional flushing urinals.*

Pipe condition of conventional flushing urinal 18-months since installation showing build-up of hard calcium scale.



## Urine's inherent properties are problematic:

- Urine is a waste product produced in the kidneys that filters out the harmful byproducts produced in the body. Since it is a waste product, it can contain various salts, trace amounts of hormones, protein, carbohydrates, fatty acids and nitrogen containing a component called urea.
- Bacteria, which is particularly prevalent in warmer months can precipitate calcium from human urine, causing a build up of hard calcium scale on the urinal drain and plumbing fittings.
- This can be a costly problem to fix, especially in older buildings where sewer pipes maybe inaccessible, or their location unknown.



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*BIO TABS® reduce maintenance costs by maintaining free flowing drains in waterless, no flush urinals.*

Pipe condition of waterless, no flush urinal only 12-months since installation showing heavy build up of struvite.



- Struvite build-up is a particular problem in waterless, no flush urinals particularly where they have not been adequately maintained or have been installed incorrectly.
- Waterless urinals should be inspected and cleaned at periods of no less than 6 months, until a more appropriate maintenance interval can be established for each facility.



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## BIO TABS® are an effective drain maintainer, breaking down all organic matter.

Images show pipe condition of conventional flushing urinal where BIO TABS® have been in place for over a 12-month period.



- Images show the BIO TABS® efficiently breakdown the waste build-up dissolved inside the urinal trap and pipe without water flushing.



- Pipe condition with BIO TABS® after flush with water. The waste build-up can easily drain off



- Pipe condition with BIO TABS® after clean with water jet. The waste build-up is easily flushed away.



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*BIO TABS® are long lasting, guaranteed to last a minimum 15,000 users without flushing.*

**Test By: TUV SUD PSB Pte. Ltd.**

**Test Report No.: 7191092181-MEC14-LNB, dated 15 August 2014.**

**Testing Procedure:**

A single BIO TABS® was placed in a urinal with flushing as follows:

- Volume of water per flush: 500 ml
- Dispensing Pressure: 1.5 bar
- Intervals between cycles: 15 sec
- No. of cycles: 50,000 (Max)

**Subject:**

**Calfarme BIO TABS Urinal Drain  
Maintainer/Deodorizer**

Model No.: Bug Sphere BS-  
130SD/BS-200BD.



**Figure 1:** Picture showing the water level during flushing test.



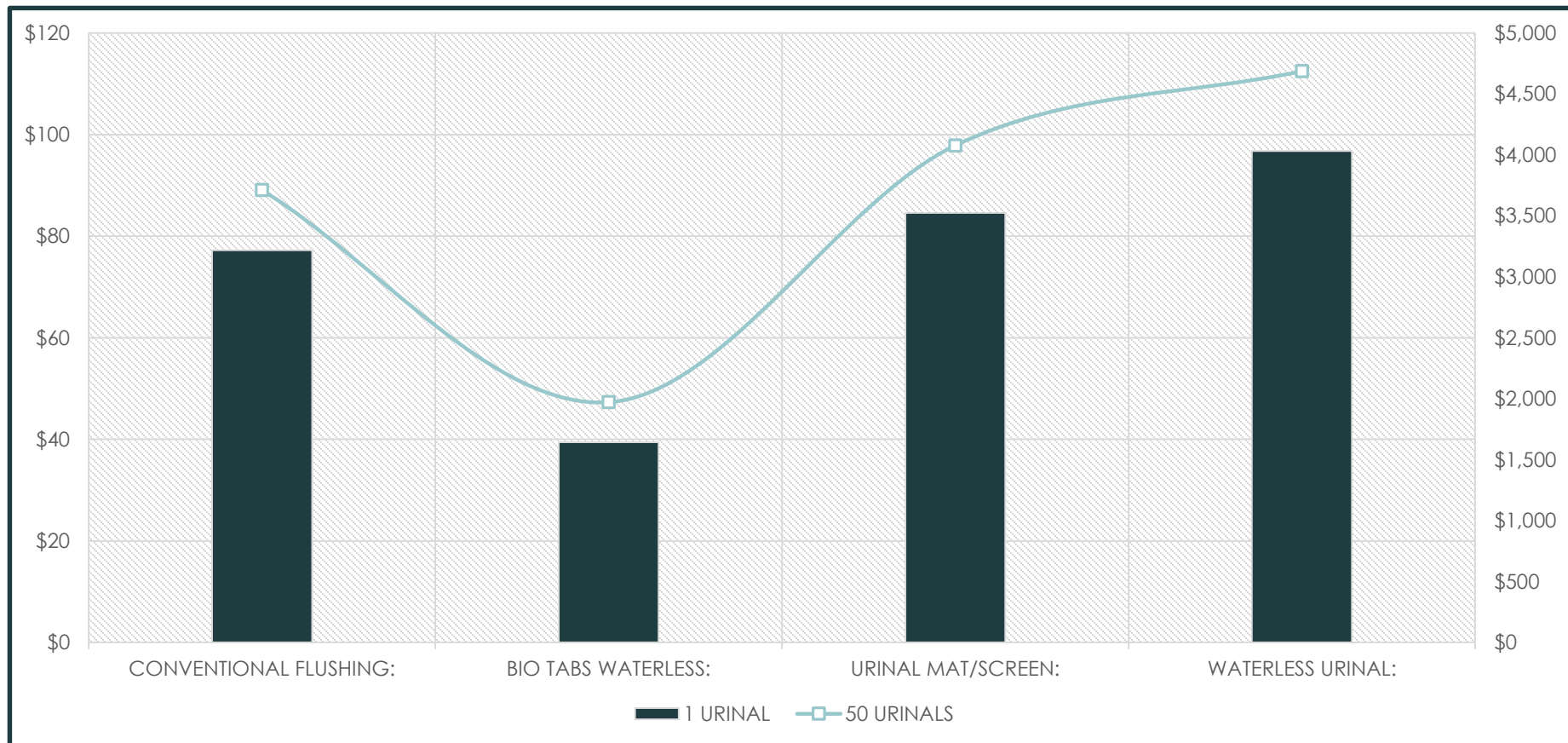
**Figure 2:** Picture showing test sample after 12,500 cycles of high pressure flushing.



*BIO TABS® are the most cost effective total urinal hygiene solution on the market.*

Results are based on: 50 users / urinal; 2 urinals / washroom; 5 visits / day; 22 days- in-use / urinal; 2 liters of water per flush; \$2.15 per kilo liter of water; 5,500 users/month.

## URINAL MAINTENANCE AV. MONTHLY CASH COST COMPARISON

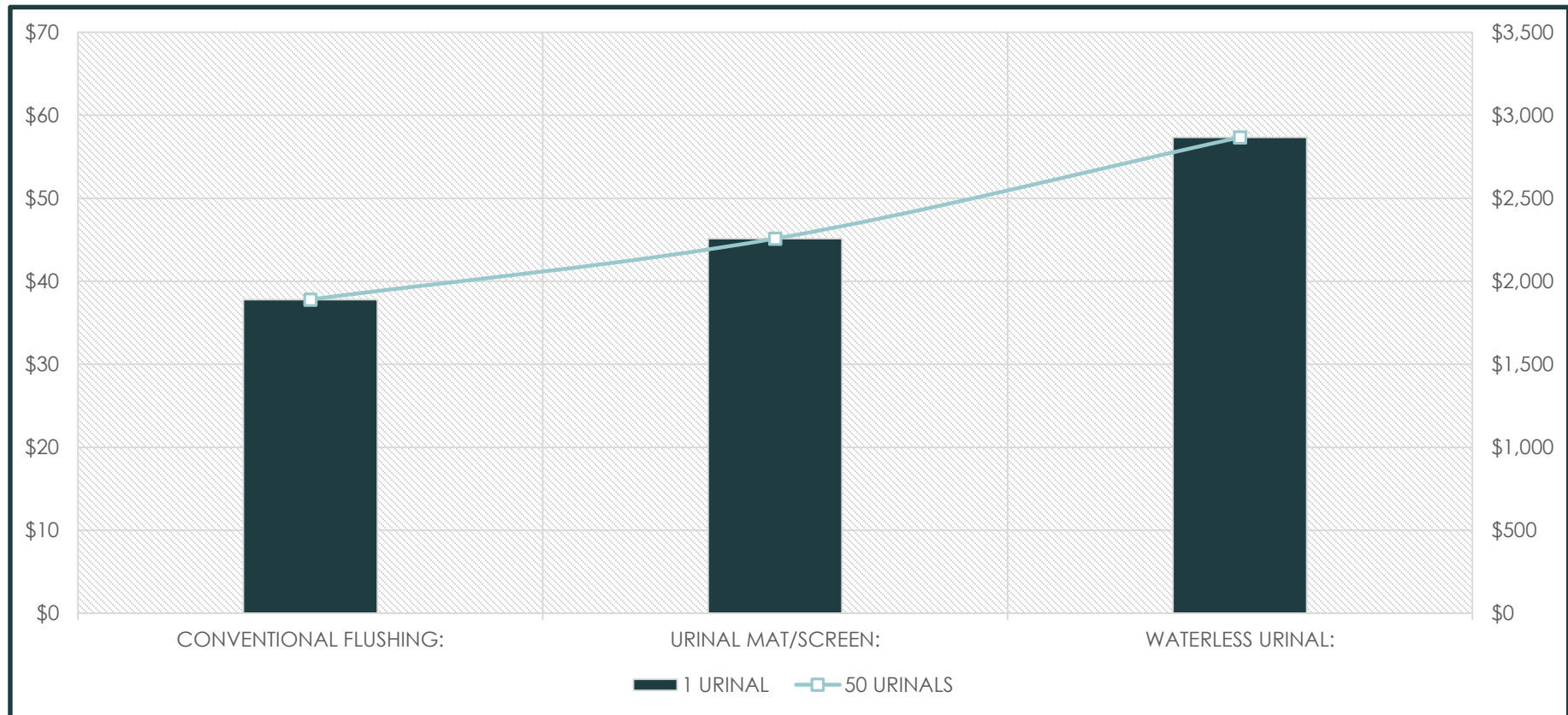


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# BIO TABS® Waterless will save you money irrespective of the urinal-in-use and protect our environment.

Results are based on: 50 users / urinal; 2 urinals / washroom; 5 visits / day; 22 days- in-use / urinal; 2 liters of water per flush; \$2.15 per kilo liter of water; 5,500 users/month.

## MONTHLY AV. NET CASH SAVINGS FROM IMPLEMENTING BIO TABS® WATERLESS

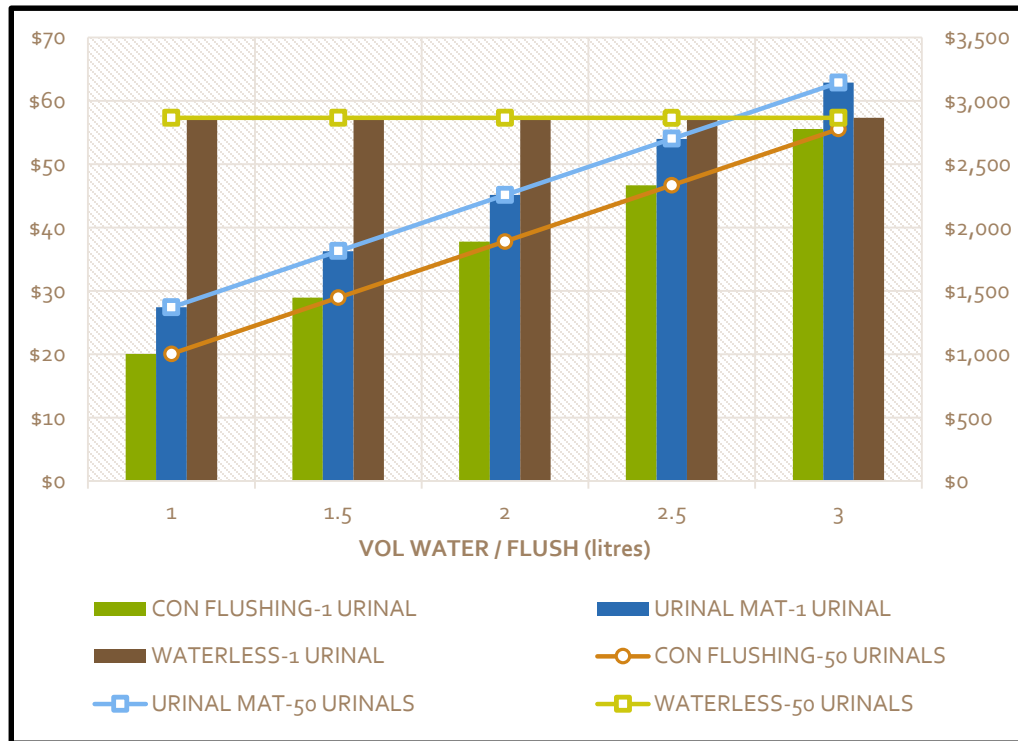




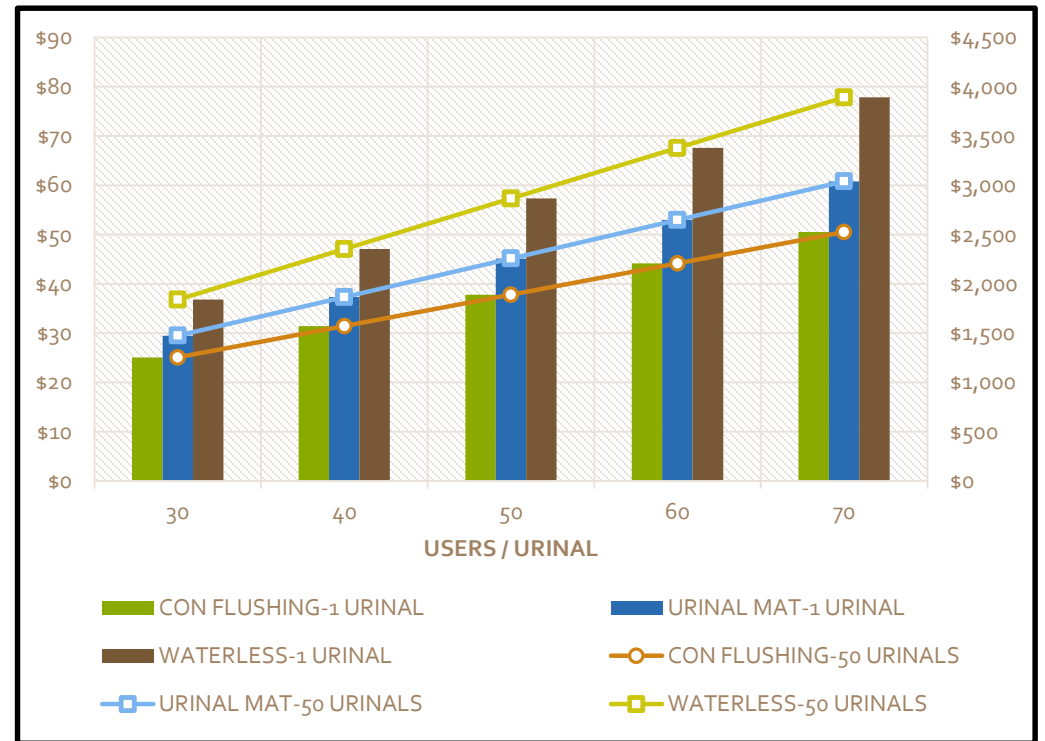
# BIO TABS® Waterless show strong cash flow savings across a wide range of sensitivities.

Results are based on: 50 users / urinal; 2 urinals / washroom; 5 visits / day; 22 days- in-use / urinal; 2 liters of water per flush; \$2.15 per kilo liter of water; 5,500 users/month.

## MONTHLY AV. NET CASH SAVINGS SENSITIVITY TO VOL OF WATER / FLUSH



## MONTHLY AV. NET CASH SAVINGS SENSITIVITY TO USERS / URINAL



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# BIO TABS® base case assumptions and comparisons built on over 35-years specialist washroom hygiene experience.

Results are based on: 50 users / urinal; 2 urinals / washroom; 5 visits / day; 22 days- in-use / urinal; 2 liters of water per flush; \$2.15 per kilo liter of water; 5,500 users / month.

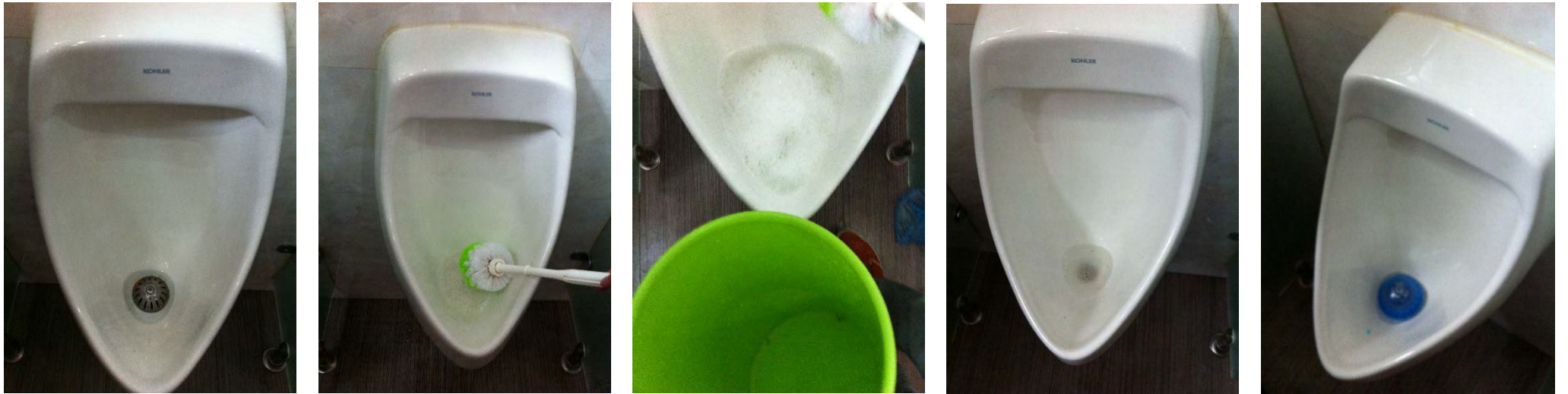
Monthly Av. Cash Costs -			1 Urinal				50 Urinals			
Products	Units	Unit Price	C'vtional Flushing	BIO TABS®	Urinal Mat	Waterless Urinal	C'vtional Flushing	BIO TABS®	Urinal Mat	Waterless Urinal
Capacity	Users		NA	15,000	3,000	7,500	NA	15,000	3,000	7,500
BIO TABS / Urinal Mat / Cartridge	\$ / product	\$25 / \$4 / \$75	-	\$9.17	\$7.33	\$55.00	-	\$458.33	\$366.67	\$2,750.00
Water	\$/K-litre	\$2.15	\$23.65	-	\$23.65	-	\$1,182.50	-	\$1,182.50	-
Sewerage	\$/K-litre	\$1.08	\$11.83	-	\$11.83	-	\$591.25	-	\$591.25	-
Air Freshener	\$/Wash Room	\$6.00	\$6.00	-	\$6.00	\$6.00	\$150.00	-	\$150.00	\$150.00
Sanitiser / Cleaner	\$/10k Users	\$15.00	\$8.25	-	\$8.25	\$8.25	\$412.50	-	\$412.50	\$412.50
Drain Clog Maintenance	\$/100k Users	\$500.00	\$27.50	-	\$27.50	\$27.50	\$1,375.00	-	\$1,375.00	\$1,375.00
BIO PLUS® Urinal Spray	\$/10K Users	\$15.00	-	\$8.25	-	-	-	\$412.50	-	-
BIO PLUS® Concentrate	\$/25K Users	\$100.00	-	\$22.00	-	-	-	\$1,100.00	-	-
<b>TOTAL – Monthly Av. Cash Costs:</b>			<b>\$77.23</b>	<b>\$39.42</b>	<b>\$84.56</b>	<b>\$96.75</b>	<b>\$3,711.25</b>	<b>\$1,970.83</b>	<b>\$4,077.92</b>	<b>\$4,687.50</b>



*BIO TABS® are easy to install - start with a clean urinal bowl and a drain, free from blockage and leakage.*

**1. Remove urinal grate cover or strainer to clean around drain opening.**

**2. Pour / flush 2-3 liters of water to check pipe flow.**



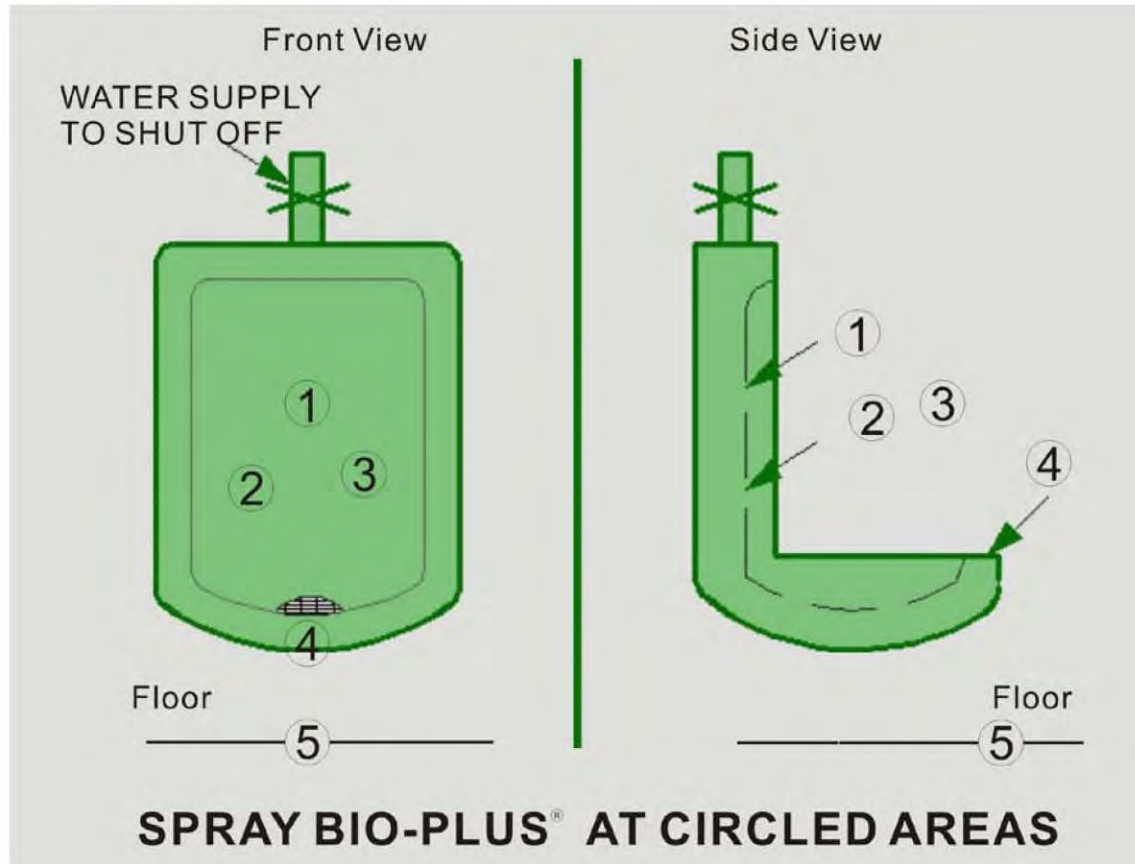
**EASY TO INSTALL:** Remove urinal grate cover or strainer away from urinal and simply place the bottom end of the BIO TABS® against the center of urinal drain.

**WEEKLY MAINTENANCE:** Pour one 25 ml BIO PLUS® sachet with minimum 1 liter of water, preferably warm water directly into urinal drain pipe and leave overnight.



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*BIO TABS® are easy to maintain with BIO PLUS® Waterless Urinal Cleaner Spray.*



**All waterless urinals should be cleaned thoroughly every day as with any other urinals and pour/flush with 1 to 2 litres water after cleaning on each urinal at end of each day.**

**SLOW-FLOWING URINAL:** Pour one 25 ml BIO PLUS® sachet with minimum 1 liter of water, preferably warm water directly into urinal drain pipe and leave overnight. Repeat if necessary.



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*BIO TABS® are designed for both deep narrow ultra-low flush and conventional flushing urinal bowls.*

**BIO TABS® BLUE SPHERE**  
**URINAL BOWL:** Deep narrow  
**REFILL:** 60 grams  
**GUARANTEE:** 10,000 users



**BIO TABS® BLUE SPHERE**  
BS-80SD, Size: 80 mm  
diameter

**BIO TABS® BLUE DOME**  
**URINAL BOWL:** Conventional  
**REFILL:** 60 grams  
**GUARANTEE:** 10,000 users



**BIO TABS® BLUE DOME**  
BD-120SD, Size: 120 mm  
diameter



**BIO TABS® BLUE DOME**  
BD-160MD, Size: 160 mm  
diameter



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*BIO TABS® are designed for all no-flushing, waterless urinal systems. Save you money and time, eliminate the need for 'BLUE SEAL' oil and frequent changing, and disposing of clogged cartridges.*



**BIO TABS® BLUE SPHERE**  
**URINAL BOWL:** Waterless  
**REFILL:** 60 grams  
**GUARANTEE:** 10,000 users



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*BIO TABS® are designed for water-savings, odor control and trouble-free maintenance of all low-flush and conventional flushing urinal troughs.*



For urinal trough, space BIO TABS® a meter apart.



## Natural cleaning at its best! Truly Cleaned with BIO PLUS®

More effective and sustainable alternative to conventional (disinfecting) chemical cleaning products.



5 Litres

BIO PLUS® Concentrate:  
Biological Cleaner, Deodorizer  
and Drain Maintainer

BIO PLUS® seeks out organic wastes and eliminates the source of most offensive odors. It leaves walls, floors and other surfaces clean and fresh smelling.

**BIO PLUS® IS SAFE, NON-TOXIC TO HUMANS AND ANIMALS, BIODEGRADABLE, NON-ACIDIC, NON-CAUSTIC AND GUARANTEED NON PATHOGENIC STRAINS.**

BIO PLUS® dramatically reduces: BOD, COD, TSS & CO<sub>2</sub>



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*BIO PLUS® is biodegradable, bio-enzymatic, highly efficient and odor free cleaning.*



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BIO PLUS® Cleaning	Traditional Cleaning
<p><b>Biodegradable.</b> Enzymes partially degrade and breakdown the effluent into an easily degradable form. What remains is water soluble which can be safely returned to the environment.</p>	<p><b>Non-Biodegradable.</b> Just lifts dirt usually only emulsifying a problem which then requires a further job of cleaning and disposing of residue.</p>
<p><b>High Efficiency.</b> Designed to penetrate more deeply and clean more thoroughly. Kept moist, the enzymes and microbes go on working until all organic waste is consumed. Bacteria counts are kept lower for longer and surfaces are clean for final sanitization.</p>	<p><b>Low Efficiency.</b> Without extensive mechanical effort or repeated applications they do not penetrate into cracks, crevices, surface scratches or carpet pile. These are the very areas where bacteria and parasites can form and multiply.</p>
<p><b>Immediate Odor Control.</b> Substrate specific enzymes prevent odors by breaking down their source. Eg..Urease breaks down urea before ammonia is produced.</p>	<p><b>Masking Benefits Only.</b> Products typically cannot breakdown or dissolve effluent, but sublimate into the air creating an odor that attempts to mask the smell of the source</p>

*BIO PLUS® is continuous, pH neutral, environmentally friendly sustainable cleaning.*



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BIO PLUS® Cleaning	Traditional Cleaning
<p><b>Residual Cleaners.</b> Cleaning after you have cleaned. Enzymes work as quickly as chemical cleaners but in addition they don't stop working until they have consumed all traces of the waste. Effective to up to 80 hours after application.</p>	<p><b>Non-Residual Cleaners.</b> Are active only when applied.</p>
<p><b>Non-Caustic, pH Neutral.</b> Because of their pH neutrality, bio-enzymatic cleaners are safe for the environment as well as human health.</p>	<p><b>Caustic, High pH.</b> Their effectiveness is dependant on a high pH, &gt; 9. This makes them particularly dangerous to human health (human blood pH of 7.5) as well as dangerous to the environment.</p>
<p><b>Sustainable, Environment Friendly.</b> By harnessing natural technology – the means by which nature cleans itself, bio-enzymatic cleaning is totally environmentally responsible and the very essence of sustainability. It provides an altogether better solution for cleaning as the degraded dirt and residual enzymes can be flushed to drain and will help water treatment plants further down the sewer line.</p>	<p><b>Non-sustainable, Environmentally Destructive.</b> High pH products which can take many hundreds of years to break down not only provide a risk to the environment, but also to human life, as they are at risk of being absorbed into the food chain on which human life is dependant.</p>

*BIO PLUS® solves all your surface cleaning, deodorizing and sub-surface drain maintenance needs.*

## All Surface Cleaning:

- Mix 1 part BIO PLUS® : 100 parts & up to 200 parts water
- **Sets the standard in price affordability.** 1 liter of BIO PLUS makes up to 200 liters of general purpose cleaning solution (and any combination in between).
- Vary dilution as required for carpets, hard surfaces, kitchen surfaces (fats, oil, etc), washrooms, mirrors, factory floors, petrol fore courts, etc

## Deodorize, Urinal Spray:

- Mix 1 part BIO PLUS® : 10 parts water for urinal cleaner and deodorizer.



## Drain Maintenance:

- Check and remove any obstructions.
- Shake well before use.
- BIO PLUS® works best when allowed to work uninterrupted/overnight when minimum drain water is discharged.
- Pour 125ml – 250ml of BIO PLUS® directly into each drain, kitchen sink, shower or lavatory with preferably warm water. Repeat on regular basis as required.



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## BIO PLUS® is safe, effective and environmentally-friendly.

**Safety Classification:** All bacteria utilized in BIO PLUS® is classified by the American Type Culture Collection (ATCC), as containing Class 1 organisms. Guaranteed to contain a minimum of  $1 \times 10^7$  CFU.

Beneficial Bacteria	Bio-Enzymes Productions
Bacillus subtilis -ATCC #6051A	Protease
Bacillus licheniformus-ATCC #12759	Lipase Cellulase
Bacillus megaterium-ATCC #14581	Urease Amalyse
Harmful Bacteria	Assurance
Salmonella	NEGATIVE
Fecal Coliform	NEGATIVE
Shigella	NEGATIVE
Coagulase positive staphylococci	NEGATIVE
Beta hemolytic streptococci	NEGATIVE

### Class 1 organisms are defined as:

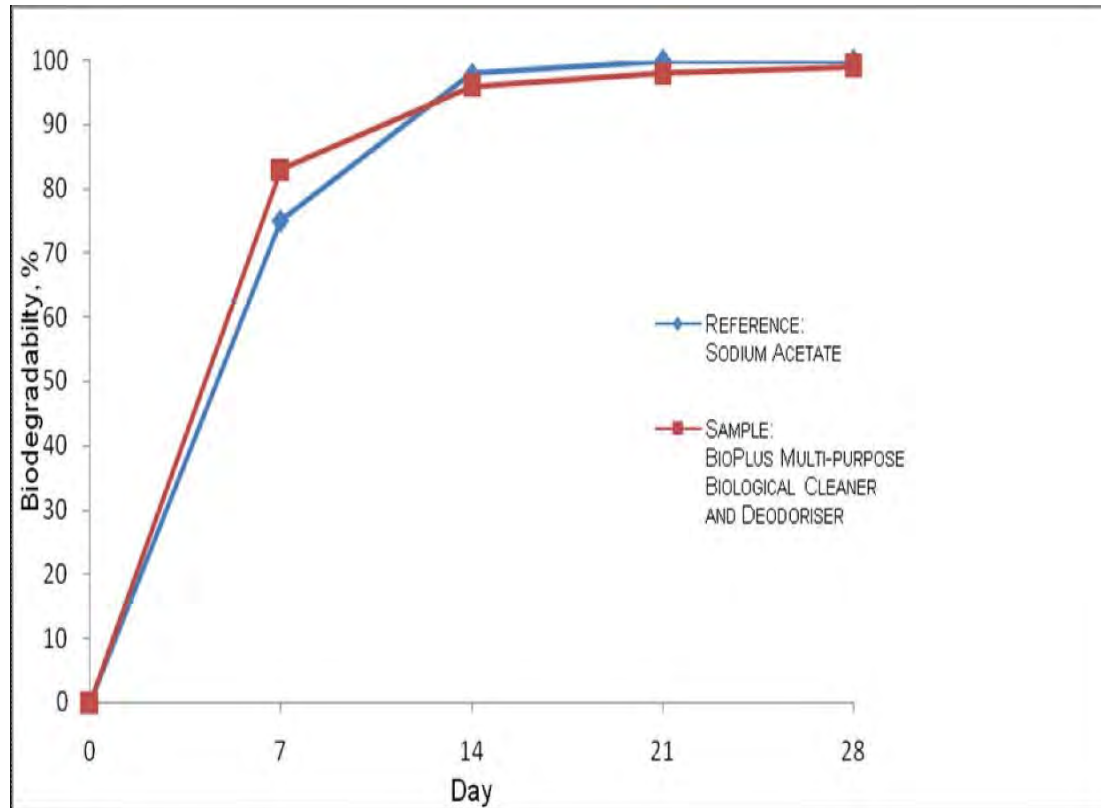
- **Naturally Occurring:** natural bacteria, endemic to earth, not genetically engineered.
- **Non-Pathogenic:** will not cause disease.
- **Non-opportunistic:** will not cause disease in a compromised host.



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*BIO PLUS® is independently certified biodegradable.*



## **BIO PLUS® biodegradability test report:**

**Test By: TUV SUD PSB Pte. Ltd.**

**TEST REPORT NO.: 719174811-CHM10-01B-PPG**

*The "BIO PLUS® Multi-purpose Biological Cleaner and Deodorizer sample complied with specified requirements stated in the OECD 301 Guideline. 72% degradation was achieved within the 28-day period of testing, satisfying ready biodegradability pass level of 60% of ThOD (COD), which is equivalent to ultimate biodegradability level of 90%."*



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*BIO PLUS® is independently certified Singapore Green Label Compliant.*

**Detergent Analysis.**

Phosphate as P <sub>2</sub> O <sub>5</sub>	less than 0.01
Chemical Dye	Not detected
pH value at 25°C	8.0
Phosphonate	Not detected
APEO (Alkylphenol ethoxylate)	Not detected
EDTA (Ethylene diamine tetra acetic acid)	Not detected
NTA (Nitrilotriacetic acid)	Not detected
Halogenated Hydrocarbon	Not detected
Formalin	Not detected

**BIO PLUS® Green Label Test Report.**

Test By: TUV SUD PSB Pte. Ltd.

Test Report No.: 719174811-CHM10-01A-EKH

*Singapore Green Label is part of Global Eco-labelling Network, which includes Good Environmental Choice, Australia Ltd and Environmental Choice New Zealand.*

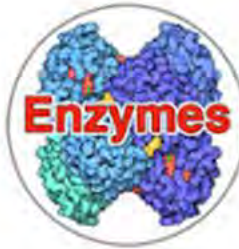


# BIO TABS® and BIO PLUS® contribute to biodegradation and environmental sustainability.

Single-cell microorganisms, genus *Bacillus* sp.

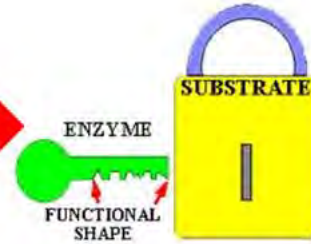


Produce



+

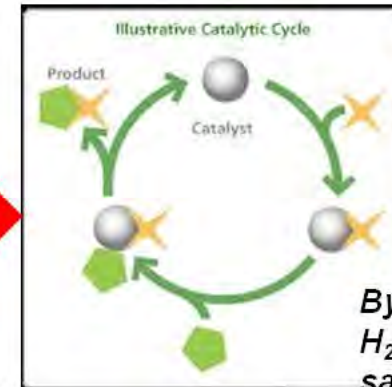
Suitable Conditions



Enzymes are substrate specific, i.e.  
Lipase to grease  
Urease to urea



Catalyze 1 million times faster than normal



By-products, H<sub>2</sub>O, CO<sub>2</sub> safely returned to environment



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# Calfarme's Green Partners from Australasia, Asia and the Americas.

Brookfield



正大广场  
SUPER BRAND MALL



Placer County  
CALIFORNIA



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*Calfarme BIO TABS® and BIO PLUS® keep washrooms 24 hours clean, fresh-smelling and clog-free!*

- All contents of BIO TABS® and BIO PLUS® are biodegradable and environmentally-friendly. BIO TABS® contain the same kind of bacteria blend that should be added to septic and sewerage systems. Safe for all sewage system treatment, plumbing and drain line maintenance.
- The packaging is made from recycled contents with Oxo-biodegradable or Bio-composite Materials. Proven and tested to comply with the criteria of Singapore Green Label Certification (Global Eco-Labeling Network) and Singapore Environment Council. *Awarded Singapore Green Label Certification No: 043-033-1327.*



ISO 9001 : 2008 CERT NO.: 689623  
ISO 14001 : 2004 CERT NO.: 689721



Certification No: 043-033



# Biological Solutions That Protect Our Environment!

## Singapore Head Office/Factory:

CALFARME (SINGAPORE) PTE LTD  
Company Regn No: 197900765W  
AMK Techlink 20 Ang Mo Kio Industrial Park 2A #-06-18  
Singapore 567761  
Tel: (65) 6556 4111 Fax: (65) 6556 2444  
Email: sales@calfarme.com.sg

## Malaysia Office/Factory:

Calfarme Products Sdn Bhd  
Company No: 277910A  
45 & 47 Jalan Tabla 33/21  
Shah Alam Technology Park Seksyen 33  
40400 Shah Alam  
Selangor Darul Ehsan  
Tel: 603-51222 700 Fax: 03-51222 705  
Email: sales@calfarme.com.my

## Australia Office/Warehouse Distribution:

CALFARME AUSTRALIA PTY LTD (ABN NO: 73 107 399 235)  
Mailing Address: P.O Box 678, Kingsgrove NSW 1480.  
Office/Warehouse: Unit 4/10 Doyle Ave, Unanderra NSW  
2526  
Tel: 1300 649 088 (Overseas call: +612 91530677)  
Email: sales@calfarme.com.au  
Website: www.calfarme.com.au

## China Office/Warehouse Distribution:

Calfarme BioTech (Ningbo) Ltd  
Company No: 330202400007059  
No.167 QiXin Road JiangDong District  
Ningbo 315100 Zhejiang Province  
Tel: 86 574-2785-2006  
Email: jiafang@calfarme.cn

## USA Office/Warehouse Distribution:

CALFARME US INC  
Company Registration No: EIN No: 46-1568471  
Warehouse: 11311 White Rock Road  
Rancho Cordova, CA 95742  
Tel: +1 (650) 350-2556  
Email: info@calfarmeus.com



Australian Patent Application No: 2012900355, 2011901331.

Australian Design Registration No: 336453, 336454, 336455 12490/2014.

International Patent Pending.

