

BIO CLEANING SOLUTIONS

Bio Tech Urinal Sanitiser

Application for - Deodorising Cleaning and Sanitising Urinals

Multipurpose biological cleaning, deodorising, descaling and sanitising solution
Non-toxic, non-corrosive, multipurpose digester with odour eliminator



Bio Tech Urinal Sanitiser is a proprietary blend formulation of surfactant-based cleaners with a consortium of highly active bacterial spores and enzymes that will effectively degrade residual organics on the urinal wall, inside the toilet bowl and other hard surfaces. Organic deposits in nooks and crevices are often the result of common stains that will easily be eliminated. These

deposits lead to stains and malodours. **Bio Tech Urinal Sanitiser** effectively degrades organics resulting in odour control and stain removal, while breaking down crystals in the drain line and clearing it of blockages.

Bio Tech Urinal Sanitiser is a bioactive grease cutting formulation with a unique combination of spore, cultures, enzymes and nutrients to effectively digest complex proteins, cellulose, starch, fats, oil and grease.

A recent challenge test comparing **Bio Tech Urinal Sanitiser** with leading sanitisers found that **Bio Tech Urinal Sanitiser** was more effective in killing harmful pathogens. All tests were conducted by a SANAS accredited micro-laboratory, a full copy is available on request.

Bio Tech Urinal Sanitiser eliminates pathogens. Industry standards indicate a five-minute kill time as the quickest time a sanitiser (QAC-based) is purported to kill the most common hygiene microorganisms; *S. aureus*, *E. coli* and *P. aeruginosa*. From a hygiene point of view the need is to sanitise and continue working. Nowadays, sanitizer manufacturers are heading towards 1 minute kill time, i.e. the quicker the sanitizer kills bugs, the sooner you'll start with your work – however in a toilet this is not always required.

With Bacillus-containing products, it's different as these are live bacteria that need to compete with other microorganisms for food sources hence longer contact times are required. The pattern that bacillus uses (as seen in the study) to eradicate or out compete other organisms showed to be due to its morphological structure. That is, where it grows (multiplies), other microorganisms will move away from that site of the food source. Since it has a larger morphological structure than other organisms (competing against) it 'sort of' creates a zone of inhibition of growth of other microorganisms (morphological inhibition) hence, we get fewer numbers of other microorganisms surviving but more bacillus.

PRODUCT FEATURES & CHARACTERISTICS

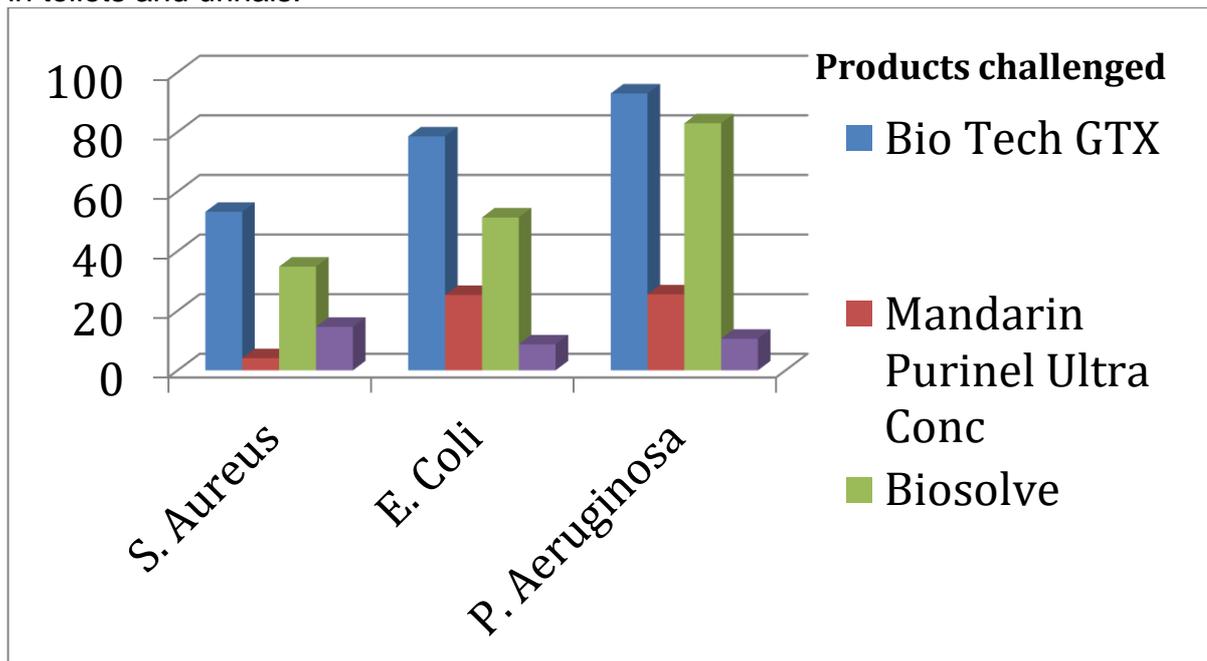
Features	Characteristics
<ul style="list-style-type: none"> • A selected blend of highly active live bacteria cultures • Contains a balanced buffer system that secures optimum enzyme activity • Cultures are a mixture of anaerobic and aerobic microorganisms • Displays high enzyme activity including protease, amylase, cellulose and lipase • Is non-volatile and non-corrosive • Is easy to handle and to use • Displays good stability and shelf life 	<p><i>Typical Biological/Biochemical Characteristics:</i></p> <ul style="list-style-type: none"> • Concentrate – 6.6×10^8 CFU/ml • Diluted 1:10 (1.0 l concentrate to 10 litres water – 6.6×10^7 CFU/ml) • pH 5.5 – 8.5 <p><i>Physical Characteristics:</i></p> <ul style="list-style-type: none"> • Appearance: Opaque liquid • Odour: Fresh fragrance • Standard packaging: 5 and 25l plastic containers

Optimum conditions for use:

Bacteria and enzymes in **Bio Tech Urinal Sanitiser** perform with a pH range of 5.5 to 8.5 with the optimum near pH 7.0. Temperature affects the activity of the working solution and action increases with the rising temperatures up to 49°C. No or little activity can be expected below 5°C.

A recent challenge test comparing **Bio Tech Urinal Sanitiser** with leading sanitizers found that **Bio Tech Urinal Sanitiser** was more effective in killing harmful pathogens. All tests were conducted by a SANAS accredited micro laboratory – a full copy is available from MCES.

Graphic representation of **Bio Tech Urinal Sanitizer's** superiority in killing common pathogens found in toilets and urinals.



How does Bio Tech Urinal Sanitiser kill these pathogens?

In contrast to the 5mins kill time as per the SABS standard being the quickest time a sanitizer (QAC-based) is supposed to kill the most common hygiene microorganisms, S. aureus, E. coli and P. aeruginosa. From a hygiene point of view, you need to sanitize and continue working, whether it's cooking, manufacturing or sanitizing toilets or urinals etc. nowadays, sanitizer manufactures are heading towards 1 minute kill time, i.e. The quicker the sanitizer kills bugs, the sooner you'll start with your work – however in a toilet this is not always required.

However with Bacillus-containing sanitizers, it's different as these are live bacteria that need to compete with other microorganisms for food sources hence the longer contact times required. The pattern that bacillus uses (as seen in the study) to kill or out compete the others showed to be due to its morphological structure. That is, where it grows, other microorganisms will move away from that site of the food source. Since it has a larger morphological structure than other orgs (competing against) it 'sort of' creates a zone of inhibition of growth of other microorganisms (morphological inhibition) hence, we get fewer numbers of other microorganisms surviving but more bacillus.

FEATURES

- A selected blend of highly active live bacteria cultures.
- contains a balanced buffer system that secures optimum enzyme activity.
- Cultures are a mixture of anaerobic and aerobic microorganisms.
- High enzyme activity including protease, amylase, cellulose and lipase.
- Non-volatile and non-corrosive.
- Easy to be handled and to use.
- Good stability and shelf life.

Storage and handling:

- Cartridge fits multi - holders
- Store in a cool, dry place
- Avoid excessive inhalation
- Wash hand after handling

Applications:

- Urinals
- Toilet bowls

Ready to use:

- Place in cartridge
- Set timing for dispensing as per requirement



Regular cleaning with Bio Tech ensures hygiene and clean urinals

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