

# M101 - Bio Floor & Tile Manual Cleaning Use Concentrate.

Multi-Purpose bioformulation concentrate

## Bio Cleaning Solutions



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## M101 - Bio Floor In use Concentrate

Multi-Purpose bioformulation & Multi-Action Microbial Consortium

M101 - Bio Floor will show results within no time. Lifting the old grease and grime up is the first sign that it is working. The bio-enzymes work to break apart the build-up of grease and organic waste on the floor and grout. You will notice a significant improvement in the floor's appearance with your first wash, mop or scrub and employees will notice improved traction (less slippage) than before.

The bacillus consortium in *M101 - Bio Floor* produce 7 separate enzymes to ensure a swift degradation of key organic contaminants to ensure surfaces are biologically cleaned & odours controlled. Although many bacteria can utilize these organics as food sources, it is the bacteria with the most rapid production of these enzymes that provide the most dramatic effects.

M101 - Bio Floor is a bio-enzymatic product specially formulated to digest oils, grease and other dirt (organic waste) on floors leave an invisible film which continues to digest the oils and grease even after regular cleaning. Following the in-depth cleaning of floors will result in leaving them cleaner, less slippery and no malodours. M101 - Bio Floor is a powerful formulation of nutrients, stimulants and surface agents producing excellent performance.

Most chemical cleaning products emulsify organics allowing for even distribution on floor surfaces, thus not really cleaning anything by contrast to the residual cleaning effects of microbes in M101 - Bio Floor. The microorganism in M101 cleaning products work during and after the initial cleaning is done. They penetrate into cracks and crevices of floor surfaces to degrade and digest spills, grease, and other accumulated organic material leaving floors visibly cleaner.

- Common applications include cleaning floors for quick service, restaurants, schools and industrial cafeterias, long term care and hospitals, grocery store floors (behind the counter) and floors in food processing plants
- Displaces unknown, potentially "pathogenic" (disease causing) bacteria with known, healthy microorganisms and in this way contributes to better human health
- While not a biocide, a side benefit is that it eliminates the feeding and breeding sources for pests (insects) and will out-compete other potentially harmful bacteria for the same food source
- With routine cleaning, the effect is enhanced with each application until floors are truly deep cleaned

### Safety of M101 - Bio Floor Consortium

*M101 - Bio Floor* contains a blend of safe *Bacillus* microorganisms. Toxicity studies done by an independent laboratory shows that *M101 - Bio Floor* consortium has no acute oral toxicity, no acute dermal toxicity, and no acute inhalation toxicity at maximal test dose. Acute dermal irritation and acute eye irritation studies classify *M101 - Bio Floor* consortium as non-irritating. *M101 - Bio Floor* consortium does not elicit a skin sensitization reaction.

In summary

- Reduced operational spend.
- Reduced labour costs due to less man hours needed to clean the floors.
- Improved asset preservation as the reduced manual scrubbing reduced the amount of abrasion and wear and tear on the surface.
- using green solutions that have a zero impact on the environment due to Pineland Environmental Technologie's microbial and eco-benign technology.

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### **Features**

- A stable consortium of safe *Bacillus* spores
- Production of multiple enzymes providing a wide range of degradation capabilities
- A synergistic blend that works in concert to provide superior performance across multiple applications
- Excretion of high levels of amylase, cellulase, lipase, protease, urease, esterase & xylanase enzymes
- Ability to work under aerobic and anaerobic conditions
- Single product simplicity for multi-application flexibility

### **Product Characteristics**

- Bacteria Counts: -  $1 \times 10^8$  /ml.
- Bacteria Type: - Bacillus consortium producing the following enzymes:-
  - *Protease* – breaks down proteins (e.g. meat, excreted/secreted proteins) into amino acids
  - *Lipase* – breaks down fats/grease into fatty acids & glycerol. If not broken down, fats can go rancid & lead to off-odours & blocked drains/fat grease traps.
  - *Amylase* – starch acts as a glue for dirt – amylases catalyse the break-down of starch into sugars which are then further used as a food source by the bacillus
  - *Cellulase* – breaks down cellulosic material
  - *Urease* - catalyzes the hydrolysis of urea into break-down products.
  - *Esterase* -splits esters into an acid and an alcohol in a chemical reaction with water called hydrolysis. Esters have characteristic odours most of which are pleasant/fruity, however can also include onion/garlic & worse odours
  - *Xylanase* – help in breaking down plant cell walls.

What this means – the bacillus use the multitude of enzymes produced to break down the components of malodour & staining to provide microbial cleaning at the smallest level of dirt/contamination.

- Salmonella: - Not detected
- Appearance: - Clear liquid
- Fragrance: - Pleasantly perfumed
- Shelf-life: - Two years; maximum loss of 1.0 log at recommended storage conditions

### **DOSE RATES (Follow dilution rate)**

**M101 - Bio Floor can be further diluted dependant on application to a maximum of 1:100**

**CONCLUSION:** *M101 - Bio Floor Concentrate* is designed as a bio-technical aid to treatment of organic waste material offering the following advantages: - Liquefaction & reduction of solids, reduction of odor, easier disposal of waste, aids general cleaning of soiled areas, safety in operation of effluent systems, offers a viable alternative to current processing techniques using a bio-technical approach.

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