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GREENWORX
Bio Cleaning Solutions

BIO CLEANING SOLUTIONS

Odorite™ Ultra Deep Clean Enzymatic RTU - Gel
Ready to use as a Hand Soap, Hard Surface Cleaner & Equipment cleaning agent
SABS 1828 Approved - Permit Number 10319/16287

Triple-enzyme: Hand Soap in Gel Format suitably applies as a floor, hard surface, and equipment cleaning technology for food manufacturing facilities.

Triple-action ***Odorite™ Ultra Deep Clean Enzymatic Gel*** is the latest innovation in hand and other hard surface cleaning technology in food processing industries. The advanced formulation technology for removing greasy soils provides superior, immediate cleaning of hands, floor surface soils, and equipment comparable to industrial-strength conventional chemical cleaners. The triple-enzymatic action penetrates deep into the pores, nooks, and crevices to attack and remove embedded residual soils, rendering hands and surfaces clean.

Aerosolized grease and food spills collect particulate soils, contributing to grime build-up on hands and floors. Residual organics collect in the microscopic pores of the hand and floor surfaces, cracks, corners, and grout. Hands and Floors are not clean if these embedded soils remain, and detergents alone cannot penetrate these layers of residual grime. The organic deposits pack deep into surface irregularities, produce malodours, and support unwanted biofilm and harmful bacteria.

Odorite™ Ultra Deep Clean Enzymatic **removes this grime with dual technology unequaled by traditional surfactant chemistry. It combines superior plant-based surfactant technology with bio-enzymatic action. The enzymes within** ***Odorite™ Ultra Deep Clean Enzymatic*** **work to break down fats and grease while also breaking down starches, which act as glue, trapping dirt and other organics on the surfaces. This powerful combination provides an exceptional ability to break down residual organic soils that conventional soaps and cleaning agents cannot.**

Regular use of ***Odorite™ Ultra Deep Clean Enzymatic*** removes layer upon layer of embedded grime while avoiding the traditional challenge of increasing CFU counts on food contact surfaces through bio-enzyme cleaning. Continued use prevents future organic soil and grime build-up, keeping hands, floors, and equipment deep-clean, odor-free, and controlling bio-film build-up.

DATA SHEET

Benefits	Features
• Specifically designed for cleaning hands, floor surfaces, and equipment where traditional cleaning products and bacteria-based products cannot be used due to bacterial swab counts (ATP meter) within food processing facilities. • Deep cleans hands by removing organics, fats, and oils from food build-up. • Deep-cleans floors and grout by removing the grease and grime that collects in the pores of the floor surface • Eliminates the greasy floor coating that causes slipperiness • Improves freshness by controlling odours from residual organics packed into irregular floor surfaces • Eliminates the need for rinsing hard surfaces • Degrades residual organic soils that help support insects and other unwanted pests on hard surfaces and equipment • Breaks down bio-film, allowing for effective sanitizing.	• Specifically selected highly effective enzyme combination to remove protein, fats, grease, and starch based stains • A proprietary inhibitory system that provides excellent product stability • Readily biodegradable surfactants for improved cleaning • Product is compatible with existing biological-based fat/grease trap treatment products and will ensure higher throughput on the grease traps as the fats/grease will be pre-digested

Biofilms:
A biofilm is a community of microorganisms adsorbed to a surface. Microorganisms in biofilms are enclosed in a polymeric matrix of exopolysaccharides, extracellular DNA, and proteins. Seconds after a surface (usually metal) is placed in a solution, inorganic and organic molecules absorb onto the surface. These molecules are attracted mainly by Coulombic forces (see above section), and can adhere very strongly to the surface. This first layer is called the conditioning layer, and is necessary for the microorganisms to bind to the surface. These microorganisms then attach reversibly by Van der Waals forces, followed by irreversible adhesion through self-produced attachment structures such as pili or flagella. Biofilms form on solid substrates such as stainless steel. A biofilm's enclosing polymeric matrix protects its microbes, increasing their resistance to detergents and cleaning agents. Biofilms on food processing surfaces can be a biological hazard to food safety. Improved chemical resistance in biofilms can lead to persistent contamination conditions.

Basic mechanism of enzyme action:
Enzyme-based cleaners are beneficial for biofilm removal. Bacteria are somewhat challenging to remove with traditional alkaline or acid cleaners. Enzyme cleaners are more effective on biofilms since they work as proteases by breaking down proteins at bacterial attachment sites. They work at maximum efficiency at high pH and temperatures below 60°C. Enzyme cleaners are an increasingly attractive alternative to traditional chemical cleaners because of biodegradability and other environmental factors, such as reduced wastewater generation and energy savings from cold water. They are typically less expensive than alkaline or acid cleaners.

Available packaging:
- 550ml, 5liter and 25 litre container(s)

Recommended cleaning dilution directions for RTU (ready to use) within a food processing facility:
Odorite™ Ultra Deep Clean Enzymatic: Ready to Use Gel for various cleaning applications.
- For Hands: Use as is via a soap dispenser for cleaning hands.
- For Hard Surfaces: The mixing solution is a guideline and depends on the required application and your evaluation of dirt to be cleaned when used as a hard surface and equipment cleaner.
- The recommended dilution of ***Odorite™ Ultra Deep Clean Enzymatic Ready to Use*** for general maintenance cleaning is 1:3 (i.e., part ***Odorite™ Ultra Deep Clean Enzymatic RTU Gel*** added to 3 parts water)
- Allow a few minutes of activation time on hard surfaces and equipment.
- Your standard disinfection/sterilization regime must be followed once the surfaces have been cleaned and air-dried.

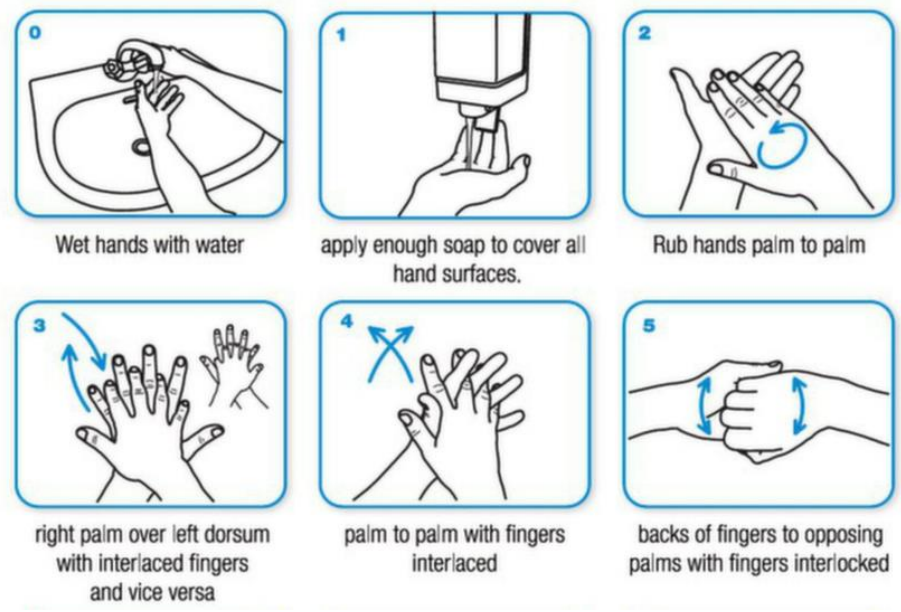
Recommended application as a hand soap within food processing facilities:

When should you wash your hands?

- Before, during, and after preparing food

- Before eating food
- Before and after caring for someone who is sick
- Before and after treating a cut or wound
- After using the toilet
- After changing diapers or cleaning up a child who has used the toilet
- After blowing your nose, coughing, or sneezing
- After touching an animal, animal feed, or animal waste
- After handling pet food or pet treats
- After touching garbage

How should you wash your hands with ***Odorite™ Ultra Deep Clean Enzymatic*** Foam Hand Soap?



- **Wet** your hands with clean, running water (warm or cold), turn off the tap, and apply soap.
- **Lather** your hands with ***Odorite™ Ultra Deep Clean Enzymatic Ready to Use hand soap Foam / Gel*** by rubbing them together with the soap. Be sure to lather the backs of your hands, between your fingers, and under your nails.

- **Rub / Scrub** your hands for at least 20 seconds. Need a timer? Hum the "Happy Birthday" song from beginning to end twice.
- **Rinse** your hands well under clean, running water turn off tap when done.
- **Dry** your hands using a clean towel or air dry them

PRODUCT CHARACTERISTICS

- **Enzyme Type** :
  - ✓ ***Protease*** – breaks down proteins (e.g., meat, excreted/secreted proteins) into amino acids.
  - ✓ ***Lipase*** – breaks down fats/grease into fatty acids and glycerol. If not broken down, fats can go rancid & lead to off-odors and blocked drains/fat grease traps.
  - ✓ ***Amylase*** – starch acts as a glue for dirt – amylases catalyze the breakdown of starch into sugars which are then further used as a food source by the bacillus.

- **Salmonella** : Not detected
- **pH** : 7.0 – 8.5
- **Appearance** : Clear liquid no colourants added
- **Fragrance** : No fragrance added
- **Stability** : Two years at 2°- @ 65° C

Product Availability:

Available in 5 liter, and 25-liter containers

Storage and handling:

- Always store in a cool, dry place
- Avoid eye
- Wash hands thoroughly with warm, soapy water after handling

Toxicity testing conducted by an outside laboratory revealed no acute oral toxicity, no acute dermal toxicity, and no acute inhalation toxicity at the maximum dose. “In this review, Literature Review *in* British Journal of Dermatology 158(6):1177-81 · July 2008 *with* 208 Reads DOI: 10.1111/j.1365-2133.2008.08561.x we look at the facts, asking whether there is evidence that the hazards identified for enzymes translate into any risk for consumer health. By considering the actual exposures in consumer use and exaggerated product usage, it is concluded that the irritating and allergenic hazards of enzyme raw materials do not translate into a risk of skin reactions, either irritant or allergic. Investigations of numerous individuals with skin complaints attributed to detergent products demonstrate convincingly that enzymes were not responsible.”

Bio-Enzyme Cleaning Solutions means **Sustainability and Green Technology.**

This unique formulation meets the criteria for a cleaner, greener, smarter program for green technology. The bio cleaning solutions designation is used for formulations that utilize biodegradable surfactants at a neutral pH, contains no phosphates, no solvents, and low concentrations of volatile organic compounds (VOC), therefore, it is safe for the user and the environment.

Manufactured and supplied by **Green Worx Cleaning Solutions**