

BACTERIA, BIOFILM & DETERGENTS



BACTERIA, BIOFILM, STERILIZATION & DETERGENTS

When bacterial cells divide and multiply at rapid rates, they begin to create complex colonies of cells that produce a substance called biofilm.

Biofilm is a slimy, sticky material made up of sugars and proteins that feed, support, and protect bacteria. Designed to provide physical and chemical barriers for bacterial cells, biofilm structures guard cells against antimicrobial agents and other destructive forces, such as heat.

Found in a variety of industries including, but not limited to, healthcare, food and beverage, laboratory, and water treatment and management, biofilm is not easily removed; and is one of the greatest barriers to properly disinfecting and sterilizing instruments, equipment, lab wares, and other hard surfaces.

In order to properly prepare surfaces for the sterilization process, biofilm layers must be disrupted and bacterial cells exposed.

One way to disrupt the biofilm structure and remove adsorbed proteins is by using a detergent such as Haemo-Sol. The specialty enzymes and other chemical compounds in Haemo-Sol's products have been shown to effectively remove proteinaceous wastes and significantly diminish biofilm.

Once the biomass and biofilm layers have been disrupted, antimicrobials, disinfectants, and other bacteria-killing agents or procedures can be used to destroy the bacteria.

BIOFILM LIFECYCLE

Bacteria carried by biomass (blood, skin, mucus, etc.).



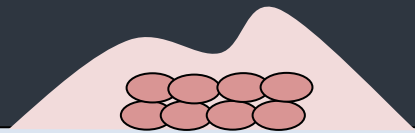
Bacteria attach to surface.



Bacteria begin to multiply and colonize.



Bacteria create a protective layer made of sugar and protein called biofilm.



SURFACE