

The role of ATP Hygiene monitoring to support successful environmental sanitation / disinfection processes.

There is often confusion between surface Sanitation/Disinfection and cleaning regimes, but these are two distinct processes but importantly coupled together to create a hygienically safe surface.

This is important, especially where ATP hygiene monitoring is concerned as this provides a rapid method to determine if a surface is clean. When a surface is clean it is in its best condition for a sanitation/disinfection process to be successful.

Where surfaces are only treated using an environmental sanitation/ disinfection process e.g. spray, fogging, ozone, or UV light then this does not constitute a cleaning process and organic surface residues can still be present on the surface. In these situations, an ATP hygiene monitoring test can produce an unacceptable/high RLU (Relative light Unit) result i.e. where the surface has not been cleaned efficiently

Impact of organic contamination on sanitation/disinfection of surfaces.

For a sanitation/disinfection process to succeed, the surface needs to be in a clean condition. If there are still organic residues on a surface, then these can provide a physical or neutralizing barrier to the mode of any bactericidal, virucidal or fungicidal mode of action, and will reduce the efficacy of the sanitizing/ disinfection agent. In addition to this, if organic residues are still present, they can still harbor microorganisms and will provide the nutrients for these to survive and multiply.

Cleaning.

Cleaning and sanitation/disinfection are often considered part of the same process, but sanitation /disinfection alone cannot be considered a cleaning regime.

Cleaning involves removing a contaminant from a surface. A very basic process involves

- 1 Removal of gross debris.
- 2 Cleaning of the surface with a cleaning agent/detergent.
- 3 Removal of the cleaning agent and product released from the surface.

If successful, the products and residues will have been removed.

Sanitizing/Disinfection.

Following the cleaning regime, a sanitizer/disinfectant is applied to a surface to kill any remaining viable bacterial/viral/fungal residues (depending on its activity) present following the cleaning regime. A good cleaning regime will have removed most of these contaminants

When considering testing using ATP bioluminescence as surface hygiene monitor this needs to be used once a cleaning process has been completed and preferably before a sanitizer/disinfectant is applied. If testing is only possible after sanitation/disinfection, then this is acceptable in most cases, but the following should be considered.

- The effect of the sanitizing agent on the test reagents.

This is normally not a problem where sanitizers/disinfectants are used in the correct concentration, but this can be checked if there are any concerns. Please see the link below.

<https://help.hygiene.com/kb-doc/testing-for-residual-chemical-quenching-of-the-ult-rasnap-supersnap-tests-using-the-hygiene-positive-control-kit/>

- The effect of the sanitizing agent on ATP.

In some rarer situations, ATP itself can be degraded if in contact for longer periods of time with some sanitizing/disinfection agents.

In these situations, a sample taken immediately after sanitation can be higher than one taken minutes later. This should be checked and if so ATP hygiene testing on surfaces prior to sanitation/disinfection would be advisable to ensure the surface is clean.

- The effect of the sanitizing agent on the surface.

In some situations, a sanitizer can increase RLU levels where a surface is porous or worn. for more detail please see the link below.

<https://help.hygiene.com/kb-doc/causes-of-increasing-rlu-levels-on-a-surface-after-cleaning-and-retesting/>

If you need further support, please click on the icon below

