

Environmental Monitoring with ATP Tests

There is often confusion between surface sanitation or disinfection, and cleaning regimes. These are two distinct processes but importantly coupled together to create a hygienically safe surfaces.

This is important 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 process to be successful.

Where surfaces are only treated using an environmental sanitation processes (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 Surface Sanitation

For a sanitation 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 working against any bactericide, virucide or fungicide, and will reduce the efficacy of the sanitizing 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 are often considered part of the same process, but sanitation alone cannot be considered a cleaning regime. Cleaning involves removing a contaminant from a surface. A very basic process involves these general steps.

1. Removal of debris.

2. Cleaning of the surface with a cleaning agent.
3. Removal of the cleaning agent and product released from the surface.

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

Sanitizing

Following the cleaning regime, a sanitizer 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 is applied. If testing is only possible after sanitation, then this is acceptable in most cases, but the following should be considered.

1. The effect of the sanitizing agent on the test reagents.
This is normally not a problem where sanitizers are used in the correct concentration, but this can be checked if there are any concerns. See [this article](#) for more information.
2. The effect of the sanitizing agent on ATP.
In some rare situations, ATP itself can be degraded if in contact for longer periods of time with some sanitizing 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 would be advisable to ensure the surface is clean.
3. 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. See [this article](#) for more information.

Contact Hygiena Technical Support for further assistance.

- Phone: 1-888-HYGIENA (1-888-494-4362, option 2)
- Email: techsupport@hygiena.com
- [Submit a Support Ticket](#)
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