



Microbiological Quality Management

The goal is to identify, understand, eliminate or manage risks of microbiological contamination ...

The need for understanding and controlling industrial microbiological contamination are diverse and far reaching. From safety and spoilage control in foods to performance changes in paints, growth on exposed surfaces or in household cleaning products, microbiological contamination can put your customers, your products and your business at risk.

Microbiological Quality Management is a holistic approach to ensuring that products and associated processes are designed and operated to meet or exceed safety, performance and regulatory requirements. This can be accomplished by systematically identifying, understanding, and eventually eliminating or managing risks of microbiological contamination within the industrial environment so that products work in a way that is consistent with their design and the expectations of their users.

Microbiological control is generally not a key design criterion for many formulae or processes. As a result, poor formulation and process design choices can allow organism adaptation to products, intermediates and raw materials and low level contamination from uncontrolled sources. Effective control is based on improving all aspects of the programs: formulation, process design, operating strategy and daily management.

A well implemented Microbiological Quality Management Program can deliver:

- Safety – Avoid contaminating organisms that can cause illness, especially in immune-compromised individuals like infants and elderly.
- Product Performance – Defend against discoloration, odor, turbidity, bulging or collapsing packages.
- Regulatory compliance – Prevent recalls, audits, stop sale, fines or other actions by agencies such as US FDA (adulteration) or US EPA (invalidate antibacterial claims).
- Customer Confidence – Avert serious contamination issues that can result in negative publicity or regulatory action and can interrupt supply chain or significantly undermine brand equity.



Safety, Performance and Regulatory Compliance

By working as a fully integrated partner with our clients' internal expert resources ARCADIS can help build and implement new systems, or optimize existing systems, to provide a robust micro control strategy and operating plan including:

- Training programs for all levels of technical and non-technical staff
 - Fundamentals of microbiology
 - Drivers for microbiological robustness
 - Watch-outs for minimizing contamination
 - Components of an effective Micro Control Strategy
- Product/material susceptibility assessments
 - Design and coordinate testing to assess health risks
 - Evaluate product and process performance risks
 - Apply business-appropriate standards and metrics
- Identification of process and product improvement opportunities
 - Find most cost effective solutions
 - Identify opportunities for capital and operating systems optimization
 - Integrate microbiological controls into formulations, process and equipment designs
- Strategies and tools for communicating risks throughout the supply chain

For more information:

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