



# Contamination: What You Need To Know

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There are many aspects of product contamination that should be considered during the manufacturing process. This includes quality checks during every step starting with raw material receipt and ending with finished goods release. Following Good Manufacturing Processes (GMP's) is critical to ensure safe products for consumers. Here are some preventive controls to consider for your products:

1. **Microbiological testing** ensures preventive controls for biological hazards.
  - a. Raw materials – Ingredient testing ensures clean materials by monitoring bacterial growth and microbial contamination before using in the product.
  - b. Blending – Any product contact surface could be a source of contamination. Good sanitation practices need to be in place to prevent contamination during manufacturing.
  - c. Packaging – Product contact surfaces need to be cleaned and sanitized to eliminate the risk of contamination during packaging.
  - d. Environmental monitoring – An environmental monitoring program should be established to keep watch on any harbor site or growth in the production facility that could lead to product contamination.
2. **Chemical contamination testing** ensures preventive controls for chemical hazards.
  - a. Pesticides, aflatoxins, residual solvents and heavy metals are a few examples of chemical contaminants that could end up in your product. These chemical residues could come from contaminated ground water, soil or other sources. The FDA requires that we do our homework to make sure that we are checking for known adulterants or high-risk contaminants.
  - b. Intentional contamination – Chemical contaminants that are intentionally added to the raw ingredient or finished product. After the increase in terroristic incidences, the FDA requires manufacturers to have safeguards in place to monitor any risk of intentional adulteration.
  - c. Cleaning agents – During normal sanitation activities, check to make sure that no chemical is left behind after cleaning as this would be considered contamination.
  - d. Allergen controls, sanitation controls and other chemical-handling, preventive controls must be evaluated. There should be organized, well-managed systems in place to control all types of contamination or cross-contamination risks. The label needs to list accurate ingredient information to keep the public safe.
3. **Physical testing** ensures preventive controls are in place for physical hazards.
  - a. Filth testing – This is required if the product has a high risk of debris, bugs, leaves, stems, or other common contamination for that ingredient. Risk assessments should be conducted to determine which ingredients require this testing.

- b. Metal from equipment – If there are any risks of metal or metal shavings entering the product during the manufacturing process, then metal-detection needs to be included before the final package is released for sale.
- c. Other physical contamination risks that should be considered such as filtering steps or product x-ray, additional testing would be required.

There is a lot to consider when manufacturing any product, and the steps above can help you take a risk-based approach, supported by preventive control processes to help reduce the risk of contamination. As a brand owner, have you taken into consideration all that goes into making a quality product? Have you audited your vendor to make sure they have completed all the risk assessments and are monitoring high-risk processes? These steps are a crucial part of a good vendor qualification program. Need help? We can help both manufacturers and brand owners. Lean into our quality expertise and just think of us as an extension of your team! We are here to help. Contact us today!

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### About Execute To Achieve

After spending years in the food and supplement industry, it was clear that resources need to be dedicated to education, training, and guidance on how industries and brands alike need to comply with FDA requirements. Our team of experienced managers will assist your company in building a quality food safety mindset, maintain compliance with ISO and FDA regulations, and train employees for strong retention. Employees want to be part of a team when they are empowered, knowledgeable, and confident in their job.

Contact us at [solutions@executetoachieve.com](mailto:solutions@executetoachieve.com) and let us give guidance to your organization too!