Product Safety – Risk Assessment of Packaging Material

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Fun Fact

Honey is the only food that will not rot. A jar of honey may remain edible for over 3000 years.
Creator of HACCP

Hazard Analysis and Critical Control Points
HACCP’s History

• HACCP began after NASA & other agencies involved with the space program approached the Pillsbury Company & asked it to create foods that could be eaten at zero gravity.
• The request was to be 100 % certain the products would not cause injury or illness from bacterial pathogens, toxins, or chemical or physical hazards. The approach they used evolved into the food safety program now known as HACCP.
• HACCP has been recognized internationally as a logical tool for adapting traditional inspection methods to a modern, science-based, food safety system.
• The 7 principles of HACCP forms the basis of most food quality and safety assurance systems.
General Mills Research and Development (R&D) shall design, formulate, develop, produce, store and transport all food products, ingredients, packaging materials, and premiums in accordance with applicable corporate policies governing product safety and regulatory matters.
Top Food Safety Related Issues Associated with Packaging

• Chemical –
  o Off flavor/odor (inks, adhesives, board, film) taints food

• Undeclared/Unlabeled Ingredients (Allergens)
  o Mixed packaging materials (e.g. labels, cartons, film, lids, cups, ...)
  o Printing Errors – missing copy

• Physical - Foreign Material Contamination
  o Metal, glass, wood, pests, plastic, etc.
3 Steps to Food Safe Packaging

#1 Residual Solvent (RSOL)
- Identification of chemical compounds known to cause odor issues.

#2 JAR TEST
- Detection of unknown, low odor threshold compounds; do not show up on GC analysis.

#3 SENSORY
- Non-volatiles such as bitter or sweet and off odors/flavors; determines if the package will affect food product.

Food Safety Evaluation order of completion
Packaging Food Safety Evaluation Requirement

• Evaluate **ALL** food contact material **AND** some secondary Packaging (if there is a concern e.g. Cereal cartons):

  • Material structure change
  • Resin Change
  • Vendor location change
  • Ink change or coating change
  • Fiber source change (New Mill)
Food Safety is possible through best design and prevention
Future State - 2050
Pledge

स्वच्छ भारत
एक कदम स्वच्छता को आंदोलन

PLEASE
DO NOT LITTER

[Diagram of a person throwing litter into a bin]
Disclaimer:

The views presented are of a packaging professional.

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