

# Food Allergens as Chemical Hazards



Food allergens have become increasingly important to food processors because they can represent a serious health hazard to consumers. Food processors must ensure their products are not contaminated with allergens that are not declared on their labels.

## What is a Food Allergy?

A food allergy is a human immune system response to certain foods. An allergenic reaction is triggered by a protein contained in a food.

Food allergy symptoms include:

- wheezing or breathing problems
- stomach cramps, vomiting, diarrhea
- hives, rashes or eczema

Severe allergic reactions can cause death.

## Common Food Allergens

The ten common food allergens have been grouped by the Canadian Food Inspection Agency (CFIA):

- eggs
- fish, including crustaceans (e.g., crab, crayfish, lobster, shrimp) and shellfish (e.g., clams, mussels)
- milk
- peanuts
- sesame seeds
- soy
- sulphites (food additives including: potassium bisulphite/ metabisulphite, sodium bisulphate/ dithionite/ metabisulphite/ sulphites, etc.)
- tree nuts (almonds, Brazil nuts, cashews, hazelnuts, pecans, etc.)

- wheat
- mustard

## Controlling Food Allergens in your Facility

Essential steps in developing an effective allergen management program include:

### Allergen assessment

- Prepare a master list of all ingredients and raw materials used in your facility.
- Identify if any of those ingredients contain a food allergen.
- Indicate on your master list, those ingredients that are, or contain allergens and require special measures.

### Supplier information

If you produce allergen-free food products in your facility:

- Obtain ingredient specification sheets, certificates of analysis or a complete list of ingredients.
- Verify that your supplier has a documented allergen control program.
- Obtain a letter from your supplier that guarantees ingredients are free of undeclared allergens.

### **Shipping, receiving, handling and storage**

Inspect shipments for spills or damaged containers before receiving.

- Verify that the ingredient is exactly what you ordered and has not been substituted.
- Store allergenic food ingredients separately from other ingredients – at least 1.5 meters should be maintained between allergens and other ingredients if it's not possible to store them separately.
- Store allergenic ingredients on the bottom of racks to avoid accidental spills on items below them.
- Identify ingredients with an “allergen” and/or a color-coded tag.

### **Production and plant scheduling**

Examples of production alternatives include:

- Plan the production of long runs of allergen-free products to minimize changes in production lines.
- Products containing allergens can be produced on specific days of the week.
- Products containing allergens should be produced as the last product on the line.

### **Product flow**

- Evaluate the product flow during your production cycle. Cross contamination of products can occur if products containing an allergen are placed on conveyors that cross over allergen-free products.

### **Packaging**

Store food packaging materials in designated areas to avoid allergen cross contamination.

### **Cleaning and sanitizing**

- Test your cleaning procedures to ensure no residual allergens are present, before the

production of a new product. Commercial allergen test kits are available. If an allergen is detected, re-clean the equipment and verify your cleaning operations.

- If equipment is shared for the manufacture of allergen-free foods and allergenic foods, a Sanitation Standard Operating Procedure (SSOP) should describe in detail the cleaning and sanitation procedure for equipment.

### **Employee training**

- Avoid consumer threats as well as financial consequences of a product recall by providing adequate training. Employees must be familiar with the groups of food allergens and the importance of proper product labelling, cleaning and sanitizing, etc.

### **Labelling**

- Confirm label accuracy against the product's formulation. Misleading information can cause consumer health problems, product recalls and even death.
- The Canadian Food Inspection Agency (CFIA) enforces Canada's labelling laws to ensure complete and accurate labelling of all foods. A Guide to Food Labelling for Industry is available from the [CFIA website](#)
- Common terms for food allergens (e.g., “milk ingredient” instead of “casein”) are recommended for use on food labels.

### **Documentation**

- Keep records to show your facility is taking adequate measures to control possible allergen cross contamination and label verification. These are particularly important if there is a recall or an audit.

For more information on food safety please contact the Food Safety and Inspection Branch at [foodsafety@gov.mb.ca](mailto:foodsafety@gov.mb.ca).