# MyHACCP Hazard Factsheet

## CATEGORY: Chemical

## NAME: Aflatoxins

### General Information

Aflatoxins are mycotoxins produced by the *Aspergillus* mould. There are six different types of aflatoxin which listed in descending order of toxicity are: B1 M1 G1 B2 M2 and G2. They can be carcinogenic and have been associated with liver disease. The toxin is produced by a mould and therefore steps taken to prevent mould growth will control the hazard. Contaminated foods can be treated with steam to remove the toxin but not with chemical agents. Diluting of the toxin by addition of non-contaminated food to contaminated is also prohibited.

### Common sources

Aflatoxins can be produced on virtually any food where there are suitable conditions for mould growth. However, they are commonly associated with dried foods, especially those imported from countries with hot, humid climates such as:

* Peanuts
* Maize and cereal grains
* Spices

### Properties and common controls

The most important factors affecting aflatoxin production are moisture and temperature. In optimal conditions ( 24-28°C, aw 0.94) growth of *Aspergillus* can occur within 24 hours but is most likely to occur within 4 to 10 days.

Common controls for the prevention of growth of Aspergillus and aflatoxin production in food:

* Good harvesting, storage and handling practices.
  + Keep foods dry, well aired and in pest free conditions.
* Storage temperature of food at a maximum of 8°C
* Aw of 0.70
  + This can be assessed as the moisture content of the food and will vary depending on the food and temperature. Some example control moisture contents at 20°C are:
    - Maize 15%
    - Peanuts 7%

### References

[Manual on the Application of the HACCP System in Mycotoxin Prevention and Control (FAO)](http://www.fao.org/docrep/005/y1390e/y1390e00.htm)