Polycyclic aromatic hydrocarbons

Polycyclic aromatic hydrocarbons (PAHs) are a group of contaminants produced by burning of carbon-based materials.

They can get into food either from the environment or during food processing. Some PAHs are known to cause cancer because they can damage DNA. It is therefore important that levels present in food are as low as reasonably achievable.

After the first regulatory limits in food were set in 2006, the European Food Safety Authority (EFSA) published a Scientific Opinion in which it identified 16 PAHs that occur in food and are a possible health concern. EFSA recommended that any regulation should be based on the sum of four of the most commonly occurring PAHs. Consequently, regulatory limits have been set for foods considered to be most at risk of contamination and these are set out in Regulation 1881/2006 as amended.

The following foods could contain PAHs:

- bivalve shellfish accumulate PAHs from seawater and sediment Limits are therefore applied to ensure that excessively-contaminated mussels or oysters do not enter the food chain.
- smoked products
- certain cooked meat products such as flame-grilled burgers
- certain types of dried foods, including spices and plant or algal-based supplements can be susceptible to PAH contamination if not dried correctly

Codex recognise that poor practices during smoking and drying of food are the most common cause for PAH contamination of food. Codex produced a code of practice for the reduction of food contamination CAC/RCP 68-2009 with polycyclic aromatic hydrocarbons (PAH) from smoking and direct drying processes.

View Code of practice for the reduction of food contamination as PDF (173.5 KB)