



Persistent Organic Pollutants *A Food Safety Concern*

Food safety is vital to any manufacturer, supplier, retailer, processor and warehouse provider in the food industry. The integrity of your product is dependent on periodic analysis for residual contaminants that may result in unnecessary liabilities. These contaminants are typically defined as persistent organic pollutants.

What are Persistent Organic Pollutants?

Identified as hazardous organic chemicals that are resistant to biodegradation and persist in the environment. Persistent organic pollutants (POPs) bioaccumulate and therefore are a major concern in food products across the globe.

Testing for POPs, which include dioxins/furans and PCBs, is not a requirement by the FDA at this point in time in the U.S. It is widely tested for in Europe in order to ensure the quality of their food products, the health and safety of the food consumed and the continued health and safety of the consumer.

Dioxins/Furans

More than 90 percent of human exposure to dioxins/furans is through the consumption of contaminated food – mainly meat, dairy products, fish and shellfish. They are classified as carcinogenic, showing toxic effects in animal studies and damage to reproductive and immune systems.

PCBs

PCB congeners, known as Dioxin-like PCBs, are considered carcinogenic while other PCB congeners are considered to be endocrine disruptors. Human exposure to PCBs can occur mainly through breathing in contaminated air and consuming contaminated foods. These chemicals accumulate in the person's body fat or other organs for years.

EU Rules/Regulations

Maximum levels are set for the POPs of concern to public health due to their toxicity or their potential persistence in the food chain; included are dioxins, furans and PCBs. These levels are set on the basis of scientific evidence provided by the European Food Safety Authority (EFSA). The EU requires testing for POPs not only within the EU, but for companies that import or export food products to or from the EU to ensure that these substances are kept at the lowest possible levels to protect human health.

How Eurofins Lancaster Laboratories Environmental Can Help

With more than 10 years of experience, Eurofins Lancaster Laboratories Environmental has multiple dedicated HRMS systems and laboratory space for the analysis of persistent organic pollutants.

We have an extensive understanding of the challenges associated with the analysis of dioxins/furans and PCBs needed to meet the requirements for low-level reporting limits. This includes controlling environmental factors so that very low concentrations can be reliably detected. We recognize that much of the analytical challenge is associated with the extraction and clean-up of a wide variety of food types such as:

- Milk
- Beef
- Chicken
- Pork
- Eggs
- Cocoa Powder
- Oleo Resins

With our unmatched capacity and experience, Eurofins Lancaster Laboratories Environmental has the technical expertise to provide you with piece of mind and assurance that your food or feed product is safe for consumption and use.

Contact us today for more information on how we can help ensure the safety and quality of your food products and reduce liability for your company.

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Standard Services:

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Waste Characterization
Water Quality

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Method Development
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Specialty Services:

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Hydrazines/NDMA
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Alkyl PAHs, Alkanes, Biomarkers
PFC (PFOA)

Organic Acids
Aldehydes
1,4-Dioxane (low level)
Low-Level Mercury
PMI
Method 25D

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