



Risk Insights **Food Newsletter**

Eurofins Food Testing UK Ltd
Issue 01 | September 2023



In Focus

Emerging trends and legislative changes

01. Vibrio

If this does not already form part of your testing programme, we recommend you review your product range to see where it may be relevant. Our team can support you with this exercise.

02. Arsenic

Familiarise yourself with new EU limits and consider extending your range of products tested for arsenic.

03. The impact of climate change on grain

Read how changes in climate are leading to an increase in the presence of mycotoxins and appearance in new geographical locations and what you can do about it.

Expert opinion

Optimised testing plans

With cost pressures from energy and supply chains biting, some food businesses feel forced to look for savings in their testing budget.

It's a risky business. While any reduction in testing will influence the amount or quality of analysis results available, some approaches are smarter than others.

For more information read our article on optimized testing plans:

[Optimising Test Plans](#)



Insight from our laboratories and expert scientists



Pesticides

Fruit and vegetables continue to be the most reported category for pesticide residues followed by herbs and spices, rice also remains a product of risk. Turkey was most frequently cited as the country of origin associated with failures.

The most common pesticides mentioned were Chlorpyrifos, Chlorpyrifos methyl ethylene oxide and 2 chloroethanol.



Animal by-products

Animal by products (are animal carcasses, parts of carcasses, or products of animal origin that are not fit or not intended for human consumption and are divided into 3 categories, dependent on risk. ABP can be found in a multitude of items across a number of industry sectors, such as pet foods, animal feed, blood and milk processing, anaerobic digesters for producing methane for electricity, fertilisers, biodiesel plants, and landfill sites. Microbiological testing is important to ensure the safety of these products, plant operation and employees. Our UKAS accredited laboratory can offer testing of ABP for Salmonella, Enterobacteriaceae, Clostridium perfringens and E. coli.

For further information visit our website

Testing of Animal By Products & Pet Foods



MALDI-TOF

If unidentified organisms are causing issues in your process we can help identify them

Using MALDI TOF (Matrix Assisted Laser Desorption Ionization Time of Flight) Mass Spectrometry we can identify bacteria, yeast and mould as well as groups of organisms such as yeast and filamentous fungi, which are usually difficult to analyse due to cultural conditions.

MALDI TOF helps us to identify organisms associated with food safety and spoilage by virtue of their unique molecular fingerprint. MALDI can be used to identify unknown organisms that have not been originally targeted by cultural tests, investigation of issues relating to product spoilage and shelf life and, provide swift confirmation of results for pathogens. Eurofins offers accredited confirmation and identification of presumptive Listeria, including Listeria monocytogenes, confirmation of presumptive Salmonella species and Campylobacter species, and confirmation of presumptive Legionella species and Legionella pneumophila with the MALDI Biotyper system.

01.

Vibrio

There are 3 main pathogenic species of vibrio that are responsible for a variety of illnesses.

Vibrio vulnificus may cause wound infection which itself may lead to cellulitis. Often this results from handling of contaminated fish/shellfish/ water and causing wound infections leading to about 25% mortality and systemic infections >50% fatality (higher than Ebola). Some toxic strains of Vibrio parahaemolyticus may cause Acute hepatopancreatic necrosis disease (AHPND). This is a newly emerging shrimp disease that has severely damaged the global shrimp industry.

Finally, V. parahaemolyticus and V. cholerae are a leading cause of gastroenteritis, particularly in equatorial regions of the world.

All the Vibrio grow well in warm and low salinity sea water, meaning as the coastal waters around the United Kingdom become warmer there is an increased risk of Vibrio infection from either ingestion of Vibrios, usually through eating contaminated seafood especially shellfish, or from open wounds and cuts whilst swimming or working in the sea.

02.

Arsenic

On 25 April 2023 the commission published an update to the contaminants in foodstuffs regulations.

While the changes currently only apply across EU member and have not been adopted in GB, of note are the changes for arsenic broadening the scope from rice and rice products to include infant formulae, baby food, fruit juice and salt and reducing the maximum limit for rice to 0.15mg/kg. A table of changes can be found at the end of the newsletter.



03.

The impact of climate change on grain

Mycotoxin is the term used to describe chemicals toxins naturally produced by fungi and mould that are toxic to humans and animals.

Mould is a prerequisite for mycotoxin formation however not all moulds produce mycotoxins (e.g. blue cheese, salami) and it is important to note that a large quantity of mould does not necessarily equate to high levels of toxins. Mycotoxins are the most common contaminants of grains and include the specific toxins Aflatoxin, Ochratoxin A, Deoxynivalenol (DON) and Zearalenone (

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The adverse effect of ingesting food containing mycotoxins can be acute, with symptoms appearing quickly or leading to long term health implications such as kidney and liver damage, reproductive disorders and suppression of the immune system. The risks associated with ingestion may be compounded where multiple mycotoxins occur in conjunction. As a result of these risks, maximum levels are managed through legislation.

Temperature and humidity control in growth, processing and storage are important in preventing mycotoxin formation which is why changes in climate are leading to an increase in the presence of these toxins as well as appearance in new geographical locations: trends which are likely to continue and accelerate in the coming years.

We offer mycotoxins testing in a variety of foods and feeds including cereals, dried fruits, herbs and spices, milk, and baby food. We can support you in the identification of high risk categories, advise on the legislative limits that apply, develop testing plans for product portfolios, outline sampling procedures and provide interpretation of results

[Mycotoxin testing Eurofins Scientific](#)



In the news...

Safety

Sesame seeds from India: an audit by the European Commission's health and safety found issues with traceability and processing temperatures EU audit covers ethylene oxide and Salmonella in sesame seeds from India

[Food Safety News](#)

Chemical residues: EFSA opens consultation on health risks associated with polybrominated diphenyl ethers in food EFSA opens consultation on health risks associated with polybrominated diphenyl ethers in food

[EFSA \(europa.eu\)](#)

Security

Reliance on imports could leave the UK exposed Soaring UK food prices could foretell supply shortage

[foodmanufacture.co.uk](#)

Extreme weather poses threat to crops Extreme weather poses threat to wheat crops in US and China

[newfoodmagazine.com](#)

Integrity

Avocado oil: a study has found that 70% of private label avocado oil is either rancid or adulterated Majority of private label avocado oil is rancid or adulterated, study claims

newfoodmagazine.com

Oil use in Biofuel: Category 3 animal fats are increasingly being used in biofuels, putting pressure on supplies to the feed & pet food industry Concerns over climate impacts and potential fraud from use of animal fats in transport fuel

feednavigator.com

Standards & Labelling

Organic pet food set for clearer labelling following EU Council decision Organic pet food set for clearer labeling as EU Council and Parliament reach agreement

foodingredientsfirst.com

Contaminants: On 25th May COMMISSION REGULATION (EU) 2023/915 on maximum levels for certain contaminants in food entered into force, a summary of the changes can be found here

[Eurofins Scientific](#)

Arsenic

Summary of changes

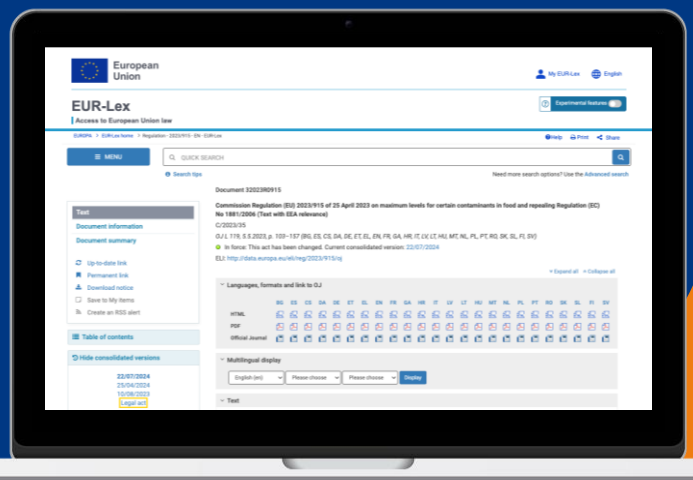
The full text of the regulations can be found on the Eur lex website

The legislation maximum levels apply to inorganic arsenic (except for salt which is total arsenic) which is a more toxic form of arsenic.

Organic arsenic, often the form found in fish and seafood, is considered less harmful.

Eurofins offer analysis for both Total Arsenic and Inorganic arsenic

COMMISSION REGULATION (EU) 2023/915 on maximum levels for certain contaminants in food and repealing Regulation (EC) No 1881/2006



Heavy Metals Testing

Foodstuffs	Previous Maximum Limit (Inorganic Arsenic mg/kg)	New Maximum Limit (Inorganic Arsenic mg/kg)
Non-parboiled milled rice(polished or white rice)	0.20	0.15
Parboiled and husked rice	0.25	0.25
Rice flour	Not listed	0.25
Rice waffles, rice wafers, rice crackers, rice cakes, rice flakes and popped breakfast rice	0.30	0.30
Rice destined for the production of food for infants and young children	0.10	0.10
Non-alcoholic rice-based drinks	Not listed	0.03
Infant formulae-marketed as powder	Not listed	0.020
Infant formulae-marketed as liquid	Not listed	0.010
Baby foods	Not listed	0.020
Fruit juices, concentrated fruit juices as reconstituted and fruit nectars	Not listed	0.020
Salt	Not listed	0.50 * (Total Arsenic)



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The Eurofins Compliance and Risk Management Team can work with you to identify and mitigate risks within your business, whether they be microbiological, contaminants, allergens, pesticides, authenticity (food fraud) or risks to your supply chain such as price changes or climate fluctuations. We are here to work with you to protect your customers, brand and reputation.



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