

Chemical contaminant monitoring

How to detect and monitor chemical contaminants and guidance on the relevant limits.

Monitoring process

Live Bivalve Molluscs feed on plankton from the surrounding water that washes through their habitat. This feeding process can lead to the build-up of environmental pollutants in the shellfish.

[Regulation No. 854/2004](#) requires the monitoring of classified shellfish production areas for chemical contaminants.

Classified shellfish production areas are monitored by our official control monitoring programmes. This ensures that the levels of chemical contamination in live bivalve molluscs do not exceed the regulatory limits laid down in Commission [Regulation No. 1881/2006](#).

Shellfish samples are collected by sampling officers and delivered to official control laboratories. At the laboratory, chemical testing is carried out to detect levels of:

- heavy metals
- polycyclic aromatic hydrocarbons (PAHs)
- dioxins if required poly-chlorinated biphenyls (PCBs) if required

Testing is carried out in accordance with the criteria set out in:

- commission [Regulation No. 333/2007](#) for metals, PAHs
- commission [Regulation No. 589/2014](#) as amended for dioxins and PCBs

Limits for chemical contaminants

Heavy metals:

- Lead – 1.5mg/kg
- Cadmium – 1.0mg/kg
- Mercury – 0.5mg/kg

Polycyclic aromatic hydrocarbons (PAHs):

- Benzo(a)pyrene – 5.0µg/kg
- Sum of benzo(a)pyrene, benz(a)anthracene, benzo(b)fluoranthene and chrysene – 30.0µg/kg

Dioxin and dioxin-like PCBs:

- Sum of dioxins – 3.5pg/g wet weight
- Sum of dioxin and dioxin-like PCBs – 6.5pg/g wet weight
- Sum of PCB28, PCB52, PCB101, PCB138, PCB153 and PCB180 – 75ng/g wet weight

Monitoring programme

Each year we review the current classified harvesting areas and select sites for sampling as

needed. The reports are published and mapped to show compliance, dates sampled and analysis type.

[View Northern Ireland Chemical Contaminant Results 2019 as PDF](#) (228.6 KB)

[View Northern Ireland Chemical Contaminant Results 2018 as PDF](#) (403.73 KB)

Chemical contaminant results

- [Colour coded by year](#)
- [Colour coded by type of analysis](#)
- [Colour coded by compliance](#)