

## CONTAMINANTS IN THE FOOD CHAIN

Contaminants are substances that are unintentionally present in food or feed, but due to their presence or accumulation over time may cause poisoning and harmful to humans and animals.

### Natural Toxins

Toxins produced by different organisms (e.g. alkaloids and mycotoxins)



Production

### Unauthorised veterinary medicines

Drugs which use is prohibited in food-producing animals (e.g. antibiotics, hormones)



Processing



Distribution



Retail & Service sector

### Environmental contaminants

Industrial and consumer chemicals present in air, soil and water (e.g. dioxins, persistent pesticides)



Households



Waste

### Process contaminants

Chemicals formed during processing, or cooking (e.g. acrylamide and furan)

### Metals & Inorganic Substances

Lead, mercury and substances like nitrates or fluorine

### DID YOU KNOW?



Provides scientific advice carries out risk assessments on contaminants;



Regulates maximum levels for certain contaminants in food ([Commission Regulation \(EU\) 2023/915](#))

Updates on-line database to rapidly exchange info on health risks derived from food or feed ([RASFF portal](#))

## ASSESSMENT OF CHEMICAL CONTAMINANTS: THE FUTURE



### Bisphenol A (BPA)

- Widely used to make polycarbonate plastics (applications in food and drink packaging), and epoxy resins.
- The Tolerable Daily Intake (TDI) is 4 µg/kg body weight



### Phthalates

- 23-26 different types of phthalates are commercially available, and used as plasticizers, solvents and emulsifiers;
- DEHP is the commonly used phthalate. In the EU is limited to 1.3 ppb.



### Per- and polyfluoroalkyl substances (PFAS)

- Perfluorooctanesulfonic acid (PFOS) and Perfluorooctanoic acid (PFOA) are the most known PFAS;
- Tolerable Weekly Intake (TWI) of 4.4 ng/kg body weight, for the sum of PFOS, PFOA, PFNA and PFHxS.