

# How can standards help protect us from harmful chemicals?

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When a substance presents strong evidence of inherent hazard or significant difficult-to-control risk, it should be banned by law to guarantee the safety of products. Legislation is key to make sure such harmful substances are eliminated or at least severely restricted.

This is where standards and technical methods come into the picture: they can ensure that all products in the EU are tested in the same way.

In this way, no matter where you buy something, you can be sure the product meets the same rules on quality, performance, and safety. Market surveillance authorities and national agencies can use these test methods and standards to verify that chemical restrictions and bans are duly enforced by manufacturers.

Without standard testing methods, it can be difficult to keep harmful products off the market as testing procedures and results will differ between EU Member States. Chemical bans or restrictions are also often delayed when standard testing methods are not in place.

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## The role of standards in ensuring compliance with new EU chemicals rules



The EU will soon implement broader restrictions on harmful chemicals with endocrine-disrupting properties - both under a specific chemicals regulation, and product-specific rules for toys or food packaging. Standardisers will kick off work to update or develop new testing standards to support the new legislation.

But their development can take a long time - the process requires financial resources and capacity from the different stakeholders involved in the process. In many cases, however, sound testing methods already exist, meaning that the absence of a standard must not be used as an excuse to oppose or delay a ban.

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# What are endocrine-disrupting chemicals?

Endocrine-disrupting chemicals, or EDCs, are substances that interfere with our hormones. They can cause problems with reproduction, brain development, metabolism, cancers, and potentially other problems.<sup>1,2</sup>

Many types of chemicals can be endocrine-disrupting. Both PFAS or 'forever chemicals', and bisphenols, such as BPA, have been identified with endocrine-disrupting properties.<sup>3</sup>

## Where can EDCs be found?

EDCs can be found in many consumer products including, clothing, shoes, toys, or electronics.<sup>4</sup> EDCs are often used to manufacture products with certain characteristics, such as waterproofing - or they are used to make plastic more flexible.<sup>5</sup>

A 2024 test of women's polyester garments showed that 10% of samples exceeded safe levels of bisphenols<sup>6</sup> and PFAS are still being found on outdoor clothing.<sup>7</sup>



## Are endocrine-disrupting chemicals banned in products in the EU?



Yes and no. The regulation of endocrine-disrupting chemicals is still developing.

Some EDCs are restricted globally under the UN's [Stockholm Convention](#) - whilst others are restricted or limited in the EU under the [REACH Regulation](#) or via product-specific regulations, e.g. [Food Contact Materials Regulation](#) or [Toy Safety Regulation](#).

It is likely that more EDCs will be regulated in more products in the future. There is already an EU proposal to ban PFAS chemicals in many products and the new Toy Safety Regulation bans endocrine-disrupting chemicals in toys (these restrictions will be implemented by 2030).

For other products, such as clothing or footwear, the EU may decide to restrict chemicals that prevent recycling, which includes some endocrine-disrupting chemicals.

## Are EDCs an issue for the circular economy?

Some of these harmful substances do not break down – they remain in materials which means that they cannot be recycled.<sup>8</sup> Flame retardants, PFAS, and chlorinated paraffins, for example, can also contaminate waste that could otherwise be recycled.<sup>8</sup> Phasing out these substances from products not only helps to protect our health, but also supports the transition to a clean and circular economy.



# What is the role of standards in detecting EDCs?

Properly validated analytical or testing methods are an important tool for enforcing chemical restrictions and bans – they create a level playing field for the EU Single Market and ensure every Member State can uphold EU regulations on chemicals in products. These standardised tests are designed to detect and quantify a target substance in materials or products.

It is important that the methods are specific enough - so that testing is accurate for the material or product, as well as the target substance. These standardised methods must be kept up to date and fit for purpose to reflect current scientific developments, and they must be able to detect to the lowest possible levels.

Currently, there is no comprehensive standard for testing all PFAS chemicals, which are found in a wide range of products. However, many good methods are available that can identify and quantify wide subsets of PFAS. This means that for food packaging, for example, there are no adequate standard testing methods that have been officially designated for the upcoming ban on PFAS (under the EU's new [Packaging and Packaging Waste Regulation](#)), but many methods are available.

This causes complications within the food contact packaging supply chain - without a standardised testing method, different Member States could use different tests to prove compliance, despite potentially different results for the same product.

Imagine a plastic food container that is sold across the EU. The manufacturer has phased out PFAS in accordance with the EU's ban, but an unintentional and very low amount of PFAS chemicals still remain in the product. A test method developed according to solid quality criteria ensures that testing in different countries follows the same procedures, and achieves the same result. When developed correctly, standards are a way to achieve this goal.

Testing methods must be applicable to as many products and materials as possible, while still being targeted, accurate, and thorough. The methods must detect a broad range of substances within each chemical group, so they are future proofed for additional restrictions. Standards will play an important role in ensuring the safety of products, but let's not forget that many alternative methods have existed for years, are broadly accepted, and are only waiting to be acknowledged and used.

## References

- 1 Endocrine Society. [Endocrine-Disrupting Chemicals \(EDCs\)](#) (2022)
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- 3 The Danish Environmental Protection Agency. [Endocrine Disruptor List](#) (Last accessed September 2025)
- 4 Endocrine Society. [Common EDCs and Where They Are Found](#) (Last accessed September 2025)
- 5 Scientific American. [What Does Plastic Do to the Endocrine System?](#) (2024)
- 6 Arnika. [Ban Bisphenols in All Products - Policy Briefing Paper](#) (2024)
- 7 IPEN. [PFAS "Forever Chemicals" Found in Outerwear and Clothing Sold Globally](#) (2023)
- 8 Bertram M, Gore A, Tyler C, Brodin T. [Endocrine-disrupting chemicals](#) (2022)