

Largest ever public screening finds “alarmingly high” chemical exposure

11 July 2023

Europe’s largest ever screening programme for toxic chemicals has found significant parts of the population exposed to multiple hazardous substances above levels that could cause serious illnesses.

European Human Biomonitoring Initiative ([HBM4EU](#)) is a five-year programme involving 116 government agencies, laboratories and universities – that [tested](#) for the presence of 18 of the most problematic groups of chemical substances in the urine and/or blood samples from more than 13,000 people from 28 European countries. Researchers found that **the population is exposed to “alarmingly high” levels of hazardous chemicals, especially of children, according** to the programme co-coordinator.

Much of that exposure stems from EU regulatory weaknesses that allow dangerously uncontrolled use of chemicals, according to the [European Environmental Bureau](#) and [CHEM Trust](#), two NGOs who followed the program.

Despite the scientists’ findings and calls for stronger regulatory action, Brussels is planning to drastically **scale back a pledge to ban the most harmful chemicals from consumer products** according to a draft **impact assessment** obtained through freedom of information rules by [Corporate Observatory Europe \(CEO\)](#).

Exactly 1,000 days ago, the European Commission’s executive vice president [Frans Timmermans promised](#) that “as a rule, the use of the most harmful substances will be prohibited in consumer products”. The impact assessment suggests that the Commission’s commitment would no longer be so ambitious. **Instead of covering all consumer products with the new ban, it plans to ban 50% of products at most and just 1% at minimum**, which would allow widespread public exposure to highly dangerous chemicals to continue. This would fail to prevent severe health damage, including contributions to cancer, infertility, obesity, asthma and neurological diseases.

Even with such a weak plan, redacted parts of the same impact assessment, seen by the EEB, state that direct costs to the chemical industry of banning the most harmful chemicals from consumer and professional products would be offset more than 10 times over by human health benefits. [1]

The European Commission committed, in its Chemicals Strategy for Sustainability, to ban the most harmful chemicals in all consumer products through a revision of the EU’s chemical safety law, REACH. **The revision had been promised for the end of 2022, but EU Commissioners decided to delay it after pressure from the German chemicals industry.**

The biomonitoring programme produced 168 peer reviewed [papers](#) that [found](#):

- **Cocktail effects:** “For several substances, the measured values are too high and we cannot exclude the risk of harmful health effects”. The EU usually assesses the risks of substances in isolation, leading to “systematic underestimation of mixture effects” in EU law. HBM4EU research repeatedly showed that chemical cocktails magnify health impacts. There is an “urgent need” to update EU law to reflect this, they conclude.
- **Regulatory avoidance:** By mapping the internal pollution of Europeans, HBM4EU also created the clearest picture yet of regulatory failure, relating mostly to the [REACH](#) HBM4EU researchers frequently found evidence of so-called ‘regrettable substitution’, the practice of switching production from a regulated substance to a similar unregulated substance likely to be just as hazardous. HBM4EU found surging levels of the BPA substitute BPS in human samples, which they linked to obesity & thyroid cancer. They observed a similar [shift](#) from phthalates to the [controversial](#) substitute DINCH, and for PFASs, where “many” substitutes [were found](#). They found newer flame retardants in large majorities of those tested ([graphic](#)).
- **Data gaps:** In most cases, the HBM4EU scientists were unable to establish levels of health concern due to “insufficient toxicity data”. This is in large part because of regulatory failure. REACH has failed to obtain the necessary data to companies, either because very little to no data is required, a loophole forces officials to allow market access before they are permitted to check the quality of the data, or because many companies [routinely](#) provide unreliable hazard data. The bottom line is that officials are in the dark about the potential

dangers of [most](#) chemicals in use today. Still, for the ones for which data is available, the majority of tests [breached](#) concentrations in the sampled populations.

- **Flame retardants:** “widespread exposure of European children” to highly damaging flame retardants. 99% of children were found polluted by a metabolite from at least one flame retardant, while 64% of children in 7 countries are polluted with another, a metabolite from a suspected carcinogen.
- **Phthalates** (plastic plasticisers): 17% of European children and adolescents were found at risk from exposure to a mixture of reprotoxic phthalates.
- **Bisphenols:** “pronounced” internal exposure to BPA throughout Europe, with mothers and children the most exposed.
- **PFASs:** “widespread exposure to PFASs which exceeds health-based guidance values”, this is, at levels beyond which health impacts cannot be ruled out. All young people tested were found polluted, with around a quarter in one study beyond the level of health concern. A growing number of ‘PFASs hotspots’ were identified, where exposure is around 100 times more than average and “a risk to human health”.

The European institutions will meet on 19 July to adopt the [F-gas regulation](#) that addresses [PFAS in heat pumps and air conditioners](#). This decision can make a **critical move to prevent a massive PFAS pollution** in our atmosphere through leaks and at maintenance.

EEB Head of Chemicals Policy Tatiana Santos said: *“The EU’s failure to control harmful chemicals is written in the contaminated blood and urine of all Europeans. Yet, the Commission is preparing to allow the most harmful chemicals to continue being used in at least half of products where they are currently used, despite its assessment that health-related savings will vastly outweigh costs to industry. Every day of delay brings more suffering, sickness, and even early death. The EU’s regulatory retreat could be the nail in the coffin of the Green Deal, fuelling cynicism and undermining trust in the European Project unless the Commission makes good on its promise to detox products. Ahead of the EU elections, it’s high time to wake up and put people before a few short-term lobby interests.”*

CHEM Trust Head of Science Ninja Reineke said: *“The EU human biomonitoring data has found very concerning contamination of EU citizens, in particular children and teenagers. The worrying burden from a combination of harmful chemicals in our bodies highlights the urgent need for action.”*

CHEM Trust Chief EU Policy Advocate, Stefan Scheuer said: *“Systematic regulatory avoidance by chemical companies puts people and the planet in danger, as they move from selling one harmful chemical to another. Exactly 1,000 days ago the European Commission pledged to fix this and tighten the EU rules on chemicals. President von der Leyen needs to live up to her commitments and get stronger rules published without delay.”*

Press contacts

- EEB Head of Chemicals Policy, Tatiana Santos tatiana.santos@eeb.org (ES / EN / FR)
- CHEM Trust chief EU policy advocate, Stefan Scheuer stefan.scheuer@chemtrust.org(DE / EN)
- CHEM Trust head of science, Ninja Reineke, ninja.reineke@chemtrust.org(DE / EN)
- EEB Communications Officer, Beatriz Ortiz Martínez, beatriz.ortiz-martinez@eeb.org (ES / EN / FR)

Notes for editors

[1] The redacted text estimates annualised costs for industry to reformulate its products and other adjustments to the regulatory changes would be between 0.9 billion to 2.7 billion Euros. This compares to annualised human health benefits ranging between around EUR 11 billion to EUR 31 billion. The figures relate to a 30 year period.