

Consensus Statement on the Use of Flame Retardants in the United Kingdom

This statement was prepared following a Roundtable held in June 2022, "Understanding and managing health risks from exposure to flame retardants, and the broader implications for UK chemicals policy".¹

Flame retardants are chemical substances that are used in efforts to mitigate fire safety risks posed by a range of goods including furniture, electronics, and building insulation. There are growing concerns about their effectiveness in ensuring fire safety and the potential harms they pose to human health and the environment. The following statement summarises those concerns, and lays out a series of policy recommendations that should lead to more effective fire safety measures and reduce the human and environmental health risks posed by these potentially toxic chemicals.

Whereas:

- i. The UK is one of the highest users of flame retardants in the world.
- ii. Flame retardants are found in many goods used in everyday life such as furniture foams and fabrics, electrical items, and building insulation.
- iii. Flame retardants migrate out of the goods to which they are added and are found in homes, classrooms, offices, public buildings, vehicles, and the wider environment.
- iv. Flame retardants are ubiquitous environmental chemical pollutants and are present in rivers, lakes, sediments, soil, air, mammals, birds, and fish throughout the world.
- v. Humans are exposed via air, dust, skin, food, water, and breast milk.
- vi. Exposure is unavoidable.
- vii. Infants and young children are disproportionately exposed because of their small relative size, hand-to-mouth, and mouthing behaviours.
- viii. A large and rapidly-expanding evidence base shows that exposure to flame retardants increases risks of deleterious health effects including developmental and behavioural disorders, neurotoxicity, endocrine disruption, metabolic disruption, cancer, and many other effects.
- ix. Scientific evidence of harm typically accumulates only after the introduction of flame retardants to market and exposure has already become widespread.
- x. Flame retardants found to be harmful will continue to be released from products such as furniture decades after manufacture. This disproportionately affects lower socioeconomic groups.
- xi. There is significant uncertainty about whether and to what extent flame retardants contribute to fire safety.
- xii. The UK's approach to securing fire safety is narrowly focused on passing ignition tests. This incentivises the addition of large amounts of fire retardants to furniture and other items and materials, without a clear net benefit in reduction of harm.

¹ <https://www.ukcleanair.org/2022/06/15/human-environmental-health-roundtable/>

- xiii. There is evidence that flame retardants exacerbate smoke and fire toxicity. A significant proportion of fire deaths are caused by inhalation of toxic fumes, including cyanide gas and carbon monoxide.
- xiv. Flame retardants are problematic at all stages of the lifecycle: in manufacturing, everyday use, during fires, recycling (thereby compromising the circular economy) and disposal.

The following signatories call on the UK government to:

- 1.** Minimise the need for chemical flame retardants by incentivising industry to develop benign-by-design furniture, building materials, and other goods. These should be made from materials that are inherently less flammable and less likely to produce toxic smoke than conventional, highly flammable foams and other products that require significant addition of flame retardants in order to comply with fire safety standards. Fire safety standards should actively encourage fire safety by innate product design, rather than by chemical flame retardant usage.
- 2.** Adopt a systemic approach to fire safety standards, evaluating the contribution of flame retardants to fire safety in the context of behaviours that initiate fires, factors that affect fire propagation, smoke generation, and toxicity during fires, and vulnerabilities that make people more likely to be harmed in a fire. This includes stepping away from a reductionist view that the passing of ignition tests is sufficient to ensure fire safety. Where ignition tests are used as part of a fire safety system, their effectiveness in improving fire safety, impact on product design innovation, and their consequences for flame retardant usage, should be fully evaluated.
- 3.** Improve the governance of standards, regulation, and testing of flame retardants and fire safety. Fire safety needs to be recognised as a complex, multi-disciplinary problem that requires joined-up thinking and strategic oversight; inclusive, broadly representative, open processes that represent different stakeholder views and expertise; and ensuring that decision-making and integrity of deliberative processes are not compromised by conflicted interests.
- 4.** Promote a culture of and funding for human environmental health research in the UK, to support the development, synthesis, and interpretation of the multi-disciplinary evidence base that is required for making evidence-informed decisions in complex regulatory environments.
- 5.** Ensure that a very high level of certainty about the human and environmental safety of flame retardants is demonstrated before they are approved for use, and that pro-active, systematic evidence generation and monitoring systems are in place to flag unanticipated issues and ensure rapid replacement of problematic flame retardants with safer alternatives.
- 6.** Develop a labelling system for tracking the use of chemicals in products, including flame retardants, that allows undesirable substances to be easily identified and diverted away from the circular economy.

Signatories

Dr Michelle Bellingham

School of Biodiversity, One Health and Veterinary Medicine
University of Glasgow, UK

Dr Linda S. Birnbaum

Scientist Emeritus and Former Director, National Institute of Environmental Health Sciences
and National Toxicology Program; Scholar in Residence, Nicholas School of the
Environment
Duke University, USA

Professor Aleksandra Cavoški

Birmingham Law School
University of Birmingham, UK

Ms Delyth Fetherston Dilke

Journeyman with the Guild of Traditional Upholsterers, Association of Master Upholsterers
and Soft Furnishers Associate, UK

Professor Ruth Garside

University of Exeter Medical School
University of Exeter, UK

Professor Stuart Harrad

School of Geography, Earth and Environmental Sciences
University of Birmingham, UK

Professor Frank Kelly

Faculty of Medicine, School of Public Health
Imperial College, London, UK

Professor Andreas Kortenkamp

College of Health, Medicine and Life Sciences
Brunel University, UK

Dr Olwenn Martin

Department of Arts and Sciences
University College London, UK

Mr Jamie Page

The Cancer Prevention & Education Society, UK

Professor Anna Stec

Centre for Fire and Hazards Sciences
University of Central Lancashire, UK

Dr Paul Whaley

Lancaster Environment Centre
Lancaster University, UK

Professor Tom Woolley

Ecological Design Association Northern Ireland