ALERTER

Forever Chemicals Litigation: here to stick?

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PFAS ("*Per- and polyfluoroalkyl substances*") is a broad term that describes a family of thousands of synthetic compounds created by replacing hydrogen atoms (the natural bonding partner for carbon) with fluorine atoms. This gives PFAS a number of desirable properties such as being hydrophobic (they repel water), low friction and resistant to heat. The fluorinated parts of emitted PFAS are, however, not degradable. This means that, once released into the environment, these PFAS are not broken down, earning them the name of "*forever chemicals*". Thus, while environmental exposure can be limited PFAS bioaccumulates. Their persistence in the environment has raised concerns about their potential long-term impact on human health and the environment.

Work has been, and is being, done by public health officials to understand the potential for any public health impacts. These substances have also piqued the interest of lawyers. PFAS litigation has increased in recent years around the globe – and is beginning to emerge in the UK. Legislators have also been busy. For example, EU legislation came into effect on 1 January 2026 (Toy Safety Regulations (EU) 2025/2509) which prohibits the intentional use of PFAS in toys (and their components) that are henceforth placed on the market in the EU (and Northern Ireland). On the same day, the US State of Maine banned the sale of a number of products (including dental floss, cosmetic products, cookware, children's toys and upholstered furniture) that contained intentionally added PFAS. Other US States, including California, Colorado and Oklahoma, have introduced similar prohibitions. And by 12 January 2026 all EU Member States (and Northern Ireland) are required by the Drinking Water Directive (EU) 2020/2184) to take all necessary measures to limit the levels of PFAS in drinking water. Many are asking whether the UK (excluding Northern Ireland) is being left behind as the scientific evidence grows.

This article provides a brief description of PFAS, considers the existing regulatory regime and then highlights the importance for industry, consumers, and practitioners of keeping up to date with the evolving regulatory landscape in the UK and internationally. Finally, we give an outline of the potential for civil liability in England and Wales.

WHAT ARE PFAS?

While there are many different types of PFAS with varying properties, they all contain carbon-fluorine bonds, which are one of the strongest chemical bonds in organic chemistry. This means they resist degradation, are biostable, have low flammability, and are tolerant of high temperatures.

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The exact number of PFAS is disputed, but the total is generally thought to exceed 12,000. While there are thousands of different types of PFAS, the focus of regulators and lawyers to date has tended to be on a handful, most often perfluorooctanoic acid ("**PFOA**") and perfluorooctane sulfonic acid ("**PFOS**").

While PFAS are best known for their use in non-stick kitchenware and fire-fighting foams, they have many other uses – including in medical devices, medical research and development, food packaging, cosmetics, vehicle components, hydrogen technology, textiles, outdoor clothing, and electrical appliances such as dishwashers. If you are reading this article on a screen, it is likely coated with a PFAS anti-smudge coating; and if you are reading through contact lenses, they may also contain PFAS.

While some PFAS bioaccumulate, building up in ecosystems – including in humans – other PFAS are very mobile and easily travel to any part of the globe. They have the ability to dissolve in water (but not disappear). Yet others can be volatile and become airborne. Therefore, they easily transit to other parts of the ecosystem through water and air. The US Environmental Protection Agency ("EPA") have concluded that exposure to some PFAS may lead to adverse health outcomes in humans. Certain PFAS have also been linked to environmental pollution and adverse health outcomes in animals although the epidemiological data is largely confined to a handful of PFAS with many others having little or no data. The challenges were highlighted by one academic who notes that "[a]*lthough there are indications that such chemicals may have adverse effects on reproduction, the liver, kidneys and the immune system and be linked to low infant birth weight, cancer and thyroid disruptions, none of these diseases is a 'signal disease' for exposure to forever chemicals in the same way as mesothelioma is a 'signal tumour' for exposure to asbestos"* (Corinne Lüchinger "Forever Chemicals and Tort Law: Limitation" (2025) 16(2) *Journal of European Tort Law* 187, 189)

THE REGULATORY REGIME

The UK regulatory regime is passively diverging from that of Northern Ireland and the EU.

In the UK (excluding Northern Ireland), PFAS are primarily regulated by UK REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation) and the POPs (Persistent Organic Pollutants) Regulations, which give effect to the Stockholm Convention on Persistent Organic Pollutants (the "Stockholm Convention"). The UK therefore mirrors the bans in the Stockholm Convention on certain PFAS: PFOS, PFOA, and related substances, **Perfluorohexane Sulfonic Acid ("PFHxS") and related substances and** Long-chain Perfluorocarboxylic Acids ("C9-C21 PFCAs"). Other uses of PFAS such as when used in pesticides are subject to separate regulatory regimes. The primary enforcement authority is the Health and Safety Executive ("HSE"). The HSE is currently consulting on possible restrictions on the use of PFAS in fire-fighting foam which closes on 18 February 2026.

In the UK, PFAS are also indirectly regulated by *inter alia* product specific regulatory regimes, health and safety law, the Control of Substances Hazardous to Health Regulations and Part 2A of the Environmental Protection Act 1990. The Environmental Audit Committee (a House of Commons Select Committee) has launched an inquiry into PFAS. Submissions closed in May 2025 and the process remains ongoing.

By contrast, Northern Ireland remains subject to the EU REACH Regulation 2019/1021 regulatory regime and other legislation concerning PFAS. As such, there are additional bans on TDFAs and PFHxA, and restrictions on the use of PFAS in fire-fighting foams (subject to certain derogations). Further, the EU has enacted targeted measures such as the Packaging and Packaging Waste Regulation (EU) 2025/40 and the Toy Safety Regulations (see above). There are also plans in the EU for a much wider ban concerning "*any substance that contains at least one fully fluorinated methyl (— CF3) or methylene (— CF2 —) carbon atom (without any H/Cl/Br/I attached to it)*" with some minor exceptions with final discussions due to take place in March 2026.

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LITIGATION RISK

PFAS litigation is already occurring in many jurisdictions, notably in the US, Australia, the Netherlands, Germany Sweden and Denmark. Such claims have been pleaded under *inter alia* nuisance, property damage, product liability and personal injury. Related issues can also arise in relation to false advertising and insurance.

In the US Bloomberg reported back in 2022 that over 6,400 lawsuits had been filed since 2005 in litigation relating to PFAS. Since 2022 thousands of further lawsuits have been brought. Notably in March 2024 the District Court of South Carolina approved a class settlement for $12.5 billion in the Aqueous Film-Forming Foam Product Liability Litigation concerning alleged contaminated drinking and surface water.

In Baden-Württenberg Germany, compost-paper sludge that was spread extensively on farmland was found to contain high levels of PFAS causing contamination to groundwater and the land. In July 2024 the Landgericht (Regional Court) of Baden-Baden allowed a claim for damages brought by the Municipality of Hügelsheim against the compost company Umweltpartner Vogel AG for contaminated drinking water. While the court accepted difficulties determining causation the municipality relied on the presumption of causation pursuant to section 6 of the Environmental Liability Act (UmweltHG). The management board of Umweltpartner Vogel AG were also found to be personally liable.

One of the most eye-catching claims to date has been in Sweden. There, a group of individuals brought a claim against a publicly-owned water company alleging personal injury arising from the presence of PFAS in drinking water. Relying on the Swedish Product Liability Act which implemented the Product Liability Directive (EU) 85/374, the Swedish Supreme Court held that the drinking water constituted a defective "*product*" and that an increased *risk* of certain disease constituted physical injury. However, the Court did not proceed to determine loss.

We are unlikely to see a "Swedish" style case in this jurisdiction. It is well established in our caselaw that a mere risk of future injury is not sufficient to found a claim. In *Johnston v NEI International Combustion Limited* [2007] UKHL 39 the House of Lords held that the presence of pleural plaques following exposure to asbestos did not, in itself, constitute damage. Causation would present a significant obstacle as it would be necessary to prove both general causation (i.e. that the product is *capable* of causing the injury complained of) and individual causation (i.e. that the product *did* cause that particular injury in that particular individual). It is not sufficient to say that a particular individual is exposed to PFAS, and has acquired a disease associated with PFAS. It would be necessary to show that the particular disease was actually caused by the specific PFAS exposure at issue in the claim. That may present an inherently difficult challenge in the context of ubiquitous environmental exposure: some studies estimate that detectable levels of PFAS are present in the blood of >99% of those living in the developed world, and the Environment Agency has identified more than 10,000 potential sites in the UK. In short, bringing a personal injury claim (whether in common law negligence or under the Consumer Protection Act 1987) would be very challenging.

In this jurisdiction, we are more likely to see environmental claims built on damage to land and/or water. One potentially relevant cause of action is nuisance, which is based on the encroachment and/or physical injury by one occupier of land with the rights in or enjoyment of land by another (*Hunter v Canary Wharf Ltd* [1997] AC 655). Common law nuisance is not necessarily limited to trespass on land but may extend to pollution of a watercourse (*Manchester Ship Canal Co Ltd v United Utilities Water Ltd* [2024] UKSC 22). To date, such claims appear to be land proximate to industrial sites that formerly produced a certain type of firefighting foam that is said to have cause a high concentration of certain PFAS in ground water and soil. It is understood that at least one claim has been settled in the course of pre-action correspondence without any admission of liability.

The experience from around the world is that individual claims often face significant hurdles. In the US and other jurisdictions, the majority of claims are brought using existing frameworks for multi-party

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actions. It is likely that in England and Wales claimants will seek to utilise the existing collective redress procedural mechanisms.

Litigation risks extend beyond civil liability. Regulatory action may be taken by, *inter alia*, the Environment Agency, the HSE, the Office for Product Safety and Standards, and local authorities/trading standards. Regulatory actions are likely to be of interest to those bringing civil claims.

CONCLUSION

While this article provides only a limited sketch, the frequency of PFAS litigation (and potentially regulatory action) in England and Wales is likely to increase in 2026 and beyond. There are some significant parallels to microplastics litigation, which is also on the rise globally. It is vital for industry, consumers, and practitioners to monitor both legal and scientific developments regarding PFAS to understand and anticipate emerging trends both to ensure compliance with the evolving regulatory regime and to manage any future litigation risk.

ABOUT THE AUTHORS

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Toby Riley-Smith KC specialises in consumer law, product liability, group litigation, consumer finance and regulatory crime. He is recommended as a leading silk in these areas by Chambers UK, Legal 500 and/or international directories. He was short-listed for Group Litigation and Consumer Silk of the Year at the Legal 500 Bar Awards 2023.

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Lucy McCormick ✉

Lucy is a commercial barrister with a particular emphasis on product liability and related areas. A substantial part of Lucy's practice concerns group actions or other multi-party litigation. Lucy is particularly well known for her expertise in matters with a technology element, and contributed to *The Law of Artificial Intelligence* (Sweet & Maxwell 2021 & 2024) and *The Law and Autonomous Vehicles* (Routledge 2019).

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Douglas has a busy practice in group litigation, commercial litigation, product liability, property law, environmental law, and public law. He has experience working on nuisance claims and large environmental group actions, including pre-action matters and issues relating to causation, limitation, and jurisdiction. Before being called to the Bar as a Lord Astbury Scholar, Douglas was awarded a PhD from the University of Cambridge. He has published multiple articles in journals such as Public Law and the Journal of Planning and Environmental Law on environmental law and related issues.
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