Cosmetics Industry Position on Implementing an Extended Producer Responsibility Framework for Micropollutants in Wastewater

CTPA supports a stepwise, evidence and risk-based approach to addressing those micropollutants in urban wastewater that are not removed during the current primary to tertiary water treatment process, and that cause harm to the environment. Any action taken must be proportionate, fair, efficient and able to deliver the intended outcome. It should build on the existing legislative framework for water quality and corresponding environmental quality standards.

CTPA's Sustainability Strategy, *Driving Towards a Net Positive Cosmetics Industry*, aims to ensure that we are acting responsibly toward the consumer and environment. CTPA has supported Extended Producer Responsibility (EPR) schemes in the context of other areas such as packaging, however it urges caution in adopting such an approach for addressing micropollutants in urban wastewater, as explained in this paper. The UK Government must ensure the correct prioritisation of the recommendations from the Independent Water Commission (IWC), addressing the urgent need for more fundamental changes to take place.

Recommendations for addressing micropollutants in wastewater in the UK

1. **A phased approach:** Begin with a comprehensive review of treatment regulations and monitoring of wastewater.
2. **Science-based risk assessment:** Identify which micropollutants persist and risk causing harm to the environment and establish a comprehensive list of such micropollutants via the appropriate pre-existing legislative frameworks.
3. **Sector engagement:** Involve industries in identifying micropollutants in use and feasible alternatives to ensure fairness and practicality.
4. **Focus on prevention:** Remove problematic substances at source using voluntary initiatives and encouraging safe substitutions, and where appropriate, utilise existing regulations such as REACH.
5. **Use existing regulatory frameworks:** Infrastructure investment should be driven through the Water Price Review to ensure efficiency and accountability, rather than a parallel EPR scheme.
6. **Call for evidence:** Before pursuing EPR, commission a full impact assessment on effectiveness, cost, socio-economic impacts, and alternatives.

Key concerns from the cosmetics and personal care industry

Need for evidence-based science and policy, a risk-based approach and prioritisation of the recommendations that will deliver the greatest environmental and societal benefit.

Before considering upgrading existing facilities with a fourth treatment stage, it is essential to address the many more pressing recommendations outlined in the IWC report; prioritising those that will deliver the most meaningful outcomes for the current challenges.

Addressing the presence of micropollutants, as it appears in the IWC recommendation, must be carefully considered. Determining which micropollutants are present in wastewater requires a clear scientific definition, knowledge of substances that cause pollution, sources of the pollution and a workable list of micropollutants. Importantly, the mere presence of a substance in water does not equal pollution, nor necessarily any risk of harm, and so it is essential to determine which substances from wastewater are expected to cause harm to the environment without quaternary treatment. This calls for a risk-based approach that distinguishes between hazards and the actual risks to the environment and/or human health. Cosmetic ingredients are already assessed under the UK Cosmetics Regulation for human safety, and for environmental safety under the REACH Regulation (Registration, Evaluation and Authorisation of Chemicals).

Policy proposals must be evidence-based, and decisions must be taken transparently with a correct examination of their impact.

Any micropollutant monitoring system must be designed fairly, ensuring that the preliminary evaluation of micropollutants does not disproportionately target certain products or industries through inbuilt biases. A robust impact assessment is critical in determining the best approach to address the given problem. In particular, it must explore whether an EPR scheme is appropriate in this context, including whether it is capable of effectively delivering the policy objective, and if so, clearly demonstrating that an EPR scheme represents the most appropriate and proportionate mechanism to achieve this. In doing so, it is essential to account for socio-economic impacts on companies under economic pressure and on consumers, including higher costs and potential effects on product availability and innovation.

The experience with EPR for packaging in the UK highlights these challenges. Despite being a less complex issue in theory compared to EPR for micropollutants, it has taken six years to implement and has proven to be both costly and administratively burdensome. In the case of micropollutants in wastewater, where the science and attribution are much more complicated, these difficulties will be magnified, so any timeline must be set in a realistic manner.

Exploring alternative policy measures should be prioritised to avoid regulatory and financial burdens on companies and consumers.

Identifying the sources of micropollutants is inherently complex: substances can have multiple sources and change their chemistry as they go through the supply chain, use and release. This makes it extremely difficult to trace them back to specific products or industries. An alternative solution may be to remove problematic substances at source, so they never enter the wastewater system. However, it must be acknowledged that there is already environmental protection legislation in place in the UK with this goal. Care must be taken to avoid premature action, regrettable substitutions, and the creation of parallel regulatory processes instead of relying on established risk-management practices.

A phased approach is required to ensure measures introduced are effective.

Given the scale and complexity of the challenge, a phased approach is the most logical way forward. The first step should be to implement the less complex or most urgent recommendations outlined in the IWC's report. Once these issues have been addressed, it can be determined if the presence of

substances constitute micropollutants, and if so, which micropollutants pose a risk to the environment. The Government should work collaboratively with industry to assess whether substances harm the environment and, if so, prioritise voluntary action first, resorting to existing regulatory frameworks, like REACH, when necessary.

Cosmetics industry voluntary action

Complete phase-out of intentionally added PFAS.

The cosmetics industry strives to act responsibly and address emerging environmental issues. A key example of the industry proactively addressing an emerging issue is the use of per- and polyfluoroalkyl substances (PFAS). The use of PFAS in cosmetic products was already limited; a 2021 CTPA membership survey identified only nine PFAS substances in cosmetics and personal care products. However, building on this progress, Cosmetics Europe, the European personal care association, recommended a complete phase-out of intentionally added PFAS in cosmetic products sold across the EU, EEA and UK by 31 December 2025. That date has now passed, and the phase-out has been implemented. This recommendation, developed in close collaboration with CTPA and its members, reflected a shared commitment to responsible product stewardship. CTPA fully supported this initiative, and members worked actively to deliver its implementation.

Phase-out of plastic microbeads before legislation.

The industry's proactive stance is also evident in its response to concerns about plastic microbeads. Although the UK's ban on the manufacture of rinse-off cosmetic products containing microbeads came into force in January 2018, the cosmetics industry had already taken voluntary action in 2015 to remove plastic microbeads from rinse-off products across Europe, resulting in their phase-out from most products before the ban was officially implemented. The ban was nevertheless welcomed, as it provided a legal baseline ensuring that all companies were held to the same standard.

Limited use of microplastics in cosmetic products.

With respect to microplastics more broadly, the contribution from cosmetic products is already presumed to be very low compared to other sources. However, the EU REACH restriction published in August 2023 will lead to an even greater reduction in their use within cosmetics. While this restriction is mandatory in the EU, in the UK, companies are expected to voluntarily align products placed on the UK market with the EU requirements. This is supported by a CTPA member survey carried out in 2023, which found that 94% of responding companies intended to reformulate their products to align with the EU microplastics restriction, meaning that microplastic use in cosmetics in the UK is also likely to reduce further. Moreover, between 2023 to 2025, Defra carried out an evidence-gathering project to support potential regulatory measures under UK REACH; the resulting report[1] outlines six Risk Management Operations (RMOs), with a decision yet to be made on which will be implemented.

Lessons from the EU

In the European Union, the Commission opted for an EPR framework under the revision of the EU Urban Wastewater Treatment Directive (UWWTD). Whilst the European cosmetics industry does not

oppose contributing its fair share via an effectively implemented EPR scheme, such a system must be practical and able to be implemented in a way that is equitable and based on robust science. The EU's proposed EPR framework fails to provide real incentive, as costs are assigned by sector rather than by the actual amount of micropollutants a producer releases. Under this system, companies pay high upfront fees regardless of efforts to reduce micropollutant load, offering no reward for innovation or reformulation. A truly effective EPR must be substance-based, allowing producers to lower or avoid costs, by actively reducing or eliminating micropollutants. Providing companies time to reformulate products could prevent unnecessary payments and achieve better environmental outcomes at lower cost.

Polluter Pays Principle not applied.

Crucially, any approach should be sector-agnostic and focus on the polluting substances, not on a limited set of emission sources. However, in the EU it is only the pharmaceutical and cosmetics industries that have been identified as having to pay the full initial costs of EPR under the UWWTD. Targeting only a limited number of industries in this way and imposing liabilities and financial burden on two industrial sectors only, including for micropollutants originating from other sectors, is neither fair nor consistent with the polluter pays principle. It will not lead to the desired outcome, as other polluters will continue their emissions.

The European Commission did not consult industry, and as a result, it attributed substances that are banned or not used in cosmetic products, to the cosmetics industry; vastly overestimating the contribution of the sector. Based on the Joint Research Centre's (JRC's) database of substances found in urban wastewater, the Commission's impact assessment attributed 26% of the contribution of the toxic load to the cosmetics sector, whereas Cosmetics Europe analysed the same list and produced a figure of just 1.54%[2]. Cosmetics Europe subsequently engaged an independent external consultant to carry out an impartial assessment, which concluded that the contribution was even lower, at less than 0.2%[3].

Definitions are vague and capture substances that do not require quaternary treatment.

Clarity in definitions is essential. "Micropollutants" must be clearly defined and should not include substances that naturally degrade or are effectively removed during the first three stages of treatment, or those that do not cause harm to the environment. The focus should remain on pollutants that present genuine risks, not simply those that are present. To further complicate matters, the likelihood of a cosmetic ingredient entering the wastewater system depends on the type of product it is used for, particularly whether that product is rinse-off or leave-on. A robust, science-based framework, with thorough impact assessments, must underpin any policy development in this area.

Any reference to biodegradability should be based on existing international definitions and methodologies. The OECD 301 series of Ready Biodegradation Tests, for instance, is a cornerstone methodology used to demonstrate that a substance is "not persistent" if it achieves 60% to 70% mineralisation within 28 days. The OECD 301 Tests, along with other OECD screening methods (e.g., OECD 303, 314), are consistently implemented via several existing legislations including REACH and CLP (Classification, Labelling and Packaging Regulation). They provide a robust screening framework for assessing persistence in higher-tiered tests under more environmentally relevant scenarios.

However, the current UWWTD legal text is not clear on its definition of "rapidly degradable" substances.

Costs have been vastly underestimated and place a disproportionate financial burden on two sectors.

The principle of fairness must also extend to costs. Producers should only be responsible for problematic ingredients contained within their products. In this context, a key difference from existing packaging EPR schemes must be noted; packaging EPR links cost directly to the weight of packaging placed on the market and the cost of recovering it, meaning more packaging equates to higher cost. In contrast, a water-based EPR scheme must recognise that quaternary treatment removes many chemicals indiscriminately; therefore, the micropollutant load in water does not correspond to removal costs, making a volume-based EPR an unfair application of the polluter pays principle.

At present, the projected costs of system upgrades in the EU have been vastly underestimated, and water companies face little incentive to pursue these upgrades efficiently. An updated feasibility study carried out by the JRC[4] estimated the cost at €1.8 billion per year for all EU countries; however, studies[5] have estimated that more than two thirds of this cost would be incurred by just two countries alone. For example, if the entire French territory is classified as a sensitive area, costs are estimated at between €761 - €883 million per year, and in Germany, costs are estimated at around €395 million per year, equating to at least 71% of the Commission's estimate for all EU countries. The result is escalating costs for producers, who will effectively be paying for a system over which they have no oversight or control, which goes against the principles of many successful EPR schemes.

A list of problematic substances has not been identified, and producers are unclear of their obligations.

To enable meaningful change and pave the way towards a reliable and enforceable regulation, a positive list of micropollutants is needed. The identification of a substance for the list must be based on sound, risk-based science. Such a list would allow all producers to reformulate and substitute problematic ingredients; if a substance is not present in the first place, it cannot become an issue downstream. Without a clear list and a robust definition of micropollutants, producers face uncertainty regarding both their obligations and potential financial liabilities.

Furthermore, fundamental questions remain, such as how effective quaternary treatments are in practice and whether they deliver measurable benefits and at what cost. Until these issues are addressed, moving ahead with an EPR scheme for micropollutants in wastewater in the UK, risks creating a framework that is neither fair nor effective.

Summary

CTPA supports the polluter pays principle and recognises the value of EPR schemes in the right context but argues this is not the case for micropollutants in wastewater. Rather, the UK should first build the evidence base, address infrastructure gaps and prioritise prevention at source. Only if risks and responsibilities are clear, should an EPR approach be considered as a potential mechanism for intervention. CTPA is ready to work with Defra and the UK Government on this important topic.

References

[1]Department for Environment, Food and Rural Affairs (Defra). Option Appraisal for Intentionally Added Microplastics - CB04121: https://sciencesearch.defra.gov.uk/ProjectDetails?ProjectId=21802

[2]Cosmetics Europe, the European personal care Association: https://cosmeticseurope.eu/news-events/cosmetics-europe-calls-uwwtd-be-re-assessed-light-new-evidence-provided-european-commission/

[3]Review of Cosmetics Europe's analysis of the contribution of the cosmetic industry to the extended producer responsibility in the context of (EU) 2024/3019, ECT Oekotoxikologie GmbH, commissioned by Cosmetics Europe, December 2025.

[4]Joint Research Centre. Updated estimation of the costs of quaternary wastewater treatment in the EU: https://publications.jrc.ec.europa.eu/repository/handle/JRC144745

[5]Cost of introducing quaternary treatments in France as part of the review of the UWWTD 2024, first estimate - May 2025. Study conducted by the consulting firm (RE)SET.