Better regulating menstrual products : why does it matter?

An overview of current knowledge and recommendations regarding the **regulation** of the **composition** of **menstrual products** within the **EU**.

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Abstract

This report demonstrates that menstrual products, used by over 112 million Europeans, remain inadequately regulated despite documented health, environmental, and consumer-rights risks. Drawing on two decades of scientific evidence and stakeholder interviews, it reveals persistent contamination by hazardous chemicals, regulatory fragmentation across the EU, and systemic transparency failures. Current frameworks do not account for chronic mucosal exposure, mixture toxicity, or lifecycle environmental impacts. The study argues that relying on consumer and civil society vigilance is insufficient; responsibility must shift upstream to manufacturers through enforceable, harmonised EU standards. It outlines pathways for EU leadership combining chemical safety, environmental sustainability, and gender-responsive regulation. Ultimately, it positions menstrual product oversight as a public-health imperative and a matter of fundamental rights.

Summary

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Introduction

Menstrual products are essential items used by approximately half of the population across the European Union (or about 112,000,000 people each year) for an average of forty years of their reproductive lives (Menstrual Matters, 2025). Despite this, these products remain largely unregulated in terms of health and chemical safety. While the EU has developed frameworks governing cosmetics, medical devices, toys, and food contact materials, there are currently no comprehensive, harmonised standards for menstrual products whether disposable or reusable.
This gap persists despite mounting evidence that such products can contain harmful substances, contribute significantly to plastic pollution, and pose chronic health risks through prolonged contact with the body's mucosal tissues. Simultaneously, the lack of transparency prevents consumers from making informed choices based on their health needs and ethical or environmental values. Surveys show that 83% of Europeans want to know what components make up their menstrual products (Règles Élémentaires, 2025), yet the current laws do not grant the possibility of exercising this right.

Menstrual products also represent a growing environmental challenge. Over 80% of pads and tampons end up in landfills (Harrison & Tyson, 2023), where plastic components can persist for centuries (World Wide Fund for Nature [WWF], 2025). Their production and disposal contribute to greenhouse gas emissions and global plastic pollution (Jambeck & Walker-Franklin, 2023).
The regulatory neglect of menstrual products thus represents a triple deficit : in public health, environmental protection, and consumer rights. Addressing this gap aligns with core EU objectives under the Green Deal, the Chemicals Strategy for Sustainability, and the Gender Equality Strategy. This study therefore aims to highlight why the EU needs to act now and how it is possible.

Exposition of the problem

The specificity of menstrual products

1. Exposure:

Roughly half of the EU population uses these products regularly for decades, and they are in direct, prolonged contact with mucous membranes, which are highly permeable pathways for chemical absorption. As highlighted by research on mucosal physiology, *"as a mucous membrane, the vagina is capable of secreting and absorbing fluids at a higher rate than skin, as are some of the external portions of the vulva, including the clitoris, clitoral hood, labia minora, and urethra"* (Wendee, 2014, p. A72).

2. Transparency:

Consumers lack the right to access the full list of components, despite multiple demands for it (through petitions and consumer group investigations) and despite having a legal right to safe products under the General Product Safety Regulation (GPSR). Unfortunately, the GPSR does not explicitly create categories for menstrual or related products, thereby limiting consumers from fully exercising this right. Similarly, most manufacturers do not disclose the full list of ingredients used in menstrual products, and their potential harmful impact.

3. Waste:

Beyond their material composition, menstrual products pose a major environmental challenge. In Europe, menstrual products are the fifth-largest source of plastic pollution on European coastlines (Daish, 2020), moreover some disposable products are thrown into toilets, which means that they can reach the sea and eventually wash up on beaches (United Nations Environment Programme [UNEP], 2021). They contain various plastics and related chemical compounds (Cabrera & Garcia, 2019), and once discarded, the majority end up in landfills, where they can take up to 500 years to decompose (UNEP, 2021). Throughout their lifecycle, plastic production and use make up 3.4% of global greenhouse gas emissions. It's a major concern considering that menstruators will use between 5000 and 15000 pads and tampons in their lifetime (Borunda, 2019). Yet, there is a notable lack of research and industrial investment in their recyclability or sustainable end-of-life management. This neglect means that the environmental problem is not systematically addressed through circular economy principles (Harrison & Tyson, 2023; WWF, 2025).

The importance of safety standards

All these elements and specificities highlight the urgent need for specific safety standards. There have been both recent and historical examples of menstrual products leading to health-related conditions, diseases, or even death. Such outcomes have been provoked either by the intrinsic composition of the products or by their misuse, often resulting from insufficient or inadequate information available to consumers. These outcomes, which will be developed further in the following sections, underline the pressing need to consider health impacts as central to the regulation of menstrual products.

Therefore, when, in this paper, we refer to safety standards, we mean not merely products that are easy to use or sufficiently absorbent, but those that comprehensively account for the health of users, protect their right to information through transparency, and minimise environmental harm throughout the product lifecycle.

The absence of such standards across the EU means that menstrual products remain classified inconsistently as consumer goods leaving fundamental gaps in oversight. Moreover, current EU-level initiatives, such as the Joint Research Centre's Product Environmental Footprint criteria, focus on waste management and sustainability, without any attention to health protection. The same limitation applies to the EU Ecolabel, which allows consumers to choose "greener" options without assessing fully their potential health impact. Menstrual product specific safety standards would enable a more comprehensive approach.

What does it have to do with products' manufacturing?

Despite growing awareness of chemical exposure and environmental impact, regulatory responses remain fragmented and incomplete. While a few jurisdictions (including France, Spain) have adopted bans, advisories, or transparency requirements, these measures are limited in scope, typically covering only intentionally added ingredients and excluding contaminants, residues, and by-products that may enter products during manufacturing or processing (Agence nationale de sécurité sanitaire, de l'alimentation, de l'environnement et du travail [ANSES], 2018; Décret n° 2023-1427; Ley Orgánica 1/2023; Senate Bill S.2387-B/A.164-B, 2019; Tampon Act A.B. 2515, 2024; Vermont Statutes Annotated, 2026). As a result, the information provided to consumers remains partial and insufficient, failing to address potential health risks or "mixture effects" of harmful products (CHEM Trust, 2022; Martin, 2023).

Because most of the risks associated with menstrual products originate upstream, in manufacturing processes and material choices, ensuring safety ultimately depends on the responsibility of producers. If this responsibility lies clearly with manufacturers, the entire product lifecycle, from raw material selection to packaging and waste management, can be oriented toward healthier, safer, and more environmentally sound production (Harrison & Tyson, 2023).

Conversely, when the burden of vigilance is placed on consumers, the impact of transparency measures or "green" labels remains limited, as users cannot verify product safety or meaningfully compare options (Règles Élémentaires, 2025; Women Environmental Network [WEN], 2025). In short, systemic safety can only be achieved when accountability is embedded at the industrial level, supported by enforceable standards and comprehensive transparency.

Goals of the Study

This report pursues three primary objectives:

1 → Identify the stakes and knowledge gaps concerning menstrual product safety for both health and the environment;

2 → Demonstrate that responsibility must shift from individual consumer behaviour to structural, industry-level accountability;

3 → Present existing data and good practices that can encourage EU-level reforms toward safer, transparent, and sustainable menstrual products.

Methodology

This report had two main objectives: (1) to establish an overview of the menstrual products current regulations and of the initiatives taken to address it; and (2) to formulate concrete and actionable recommendations for European-level regulation. To achieve this, it was structured into two major phases: a comprehensive literature review and a series of stakeholder interviews.

1. Literature review

The literature review provided the analytical foundation for the study. It aimed to identify the state of scientific knowledge, regulatory gaps, and emerging best practices regarding the health, environmental, and social dimensions of menstrual product manufacturing.

A broad range of sources was examined, including peer-reviewed scientific papers, NGO reports, legislative texts, policy documents, and official agencies' publications. The scientific literature offered insights into toxicological risks and exposure pathways, environmental impact assessments, and public health evaluations. Complementary reports from consumer rights, and non profit organisations provided evidence on awareness gaps and transparency demands.

From a legislative standpoint, we reviewed existing and emerging regulatory frameworks to establish comparative policy models. Our primary focus was on EU countries, particularly France (Decree n°2023-1427) and Spain (Ley Orgánica 1/2023), but we also conducted a comparative analysis with the United States, where several states, including New York, California, and Vermont, have introduced transparency requirements or PFAS bans between 2019 and 2024. We additionally incorporated a few other relevant international examples, as we believe they broaden the range of regulatory possibilities. All of these cases were analysed in relation to EU policy tools such as the GPSR, REACH, and the Chemicals Strategy for Sustainability.

The literature phase thus offered both a scientific and policy-based mapping of the current regulatory landscape, highlighting persistent data gaps, uneven enforcement, and the need for integrated standards addressing health, environment, and consumer rights simultaneously.

2. Stakeholder interviews

The second phase of research aimed to capture the perspectives of actors directly or indirectly involved in menstrual product governance, production, or advocacy. Collecting diverse viewpoints was essential to contextualise findings from the literature and to develop feasible policy recommendations.

Approximately 45 individuals across a wide range of stakeholder categories were contacted between July and November 2025, including representatives from EU institutions, Members of the European Parliament (MEPs), NGOs, academic experts, manufacturers, and standardisation bodies. The process resulted in 19 responses, 12 full interviews conducted and one written response.

Efforts were made to ensure political balance and institutional diversity. At the EU institutional level, interviews were sought with the European Commission (in particular, units within DG SANTE, DG GROW, and DG ENV) though given the timeframe of the study, most emails remain unanswered. Within the European Parliament, MEPs were selected from several political groups (The Left, S&D, EPP, and The Greens), focusing on members of the IMCO, SANT, ENVI, and FEMM Committees, given their relevance to product safety, health, and gender equality. Interviews were successfully conducted with Saskia Bricmont (Greens/EFA) and Ana Moura Goncalves (Sub Committee on Public Health for The Left). Joanna Scheuring-Wielgus (S&D) gave a written answer to our questions, as an interview could not be organised. Members of S&D and EPP expressed willingness to participate but scheduling constraints prevented the meetings.

At the level of civil society, interviews were conducted with CHEM Trust and the Women's Environmental Network (WEN), both of which have been leading voices in toxic-free product advocacy and menstrual health transparency. These discussions provided key insights into gaps in EU chemical regulation and the limitations of current voluntary disclosure systems. Organisations involved in the Menstrual Matters EU campaign for 28 May 2025 also contributed to the evidence base by sharing available press reviews on the topic from their respective countries of operation.

Among scientific and technical experts, the study gathered contributions from specialists in microbiology, chemistry and toxicology, helping to clarify the scientific underpinnings of contamination risks and testing needs. Importantly, the team also interviewed a representative from the International Organisation for Standardization (ISO), specifically from the Technical Committee 338, which is currently developing an international standard for menstrual products.

To ensure that the perspectives of industry actors were also considered, interviews were held with two manufacturers: Cohitec, a company specialising in high-absorbency materials, and VYLD, an innovative enterprise producing seaweed-based menstrual products. These discussions shed light on both the technical challenges and opportunities in implementing safer, more sustainable production processes.

Overall, these interviews revealed a shared recognition of the need for EU-level harmonisation, but also highlighted differing views on how to balance innovation, affordability, and regulatory burden.

3. Limitations

The European Commission responded to our interview requests; however, due to time constraints, we were ultimately unable to conduct the interviews in time for inclusion in this report.

Additionally, the absence of accessible EU-level data on the chemical composition of menstrual products prevented a comprehensive quantitative assessment of exposure levels. Most available data therefore originate from national-level testing campaigns or independent NGO studies, which vary in methodology and scope.

Due to time constraints, we were also unable to conduct interviews with consumers and therefore gathered their perspectives primarily through the literature review, supplemented by limited research on peer forums and publicly available online sources.

Lastly, although the stakeholder interviews provided valuable qualitative insights, their number and diversity cannot fully capture the entire European landscape. The findings should therefore be interpreted as indicative rather than exhaustive, while still offering a robust foundation for targeted policy recommendations. In light of these limitations, we consider it would be important for a second version of this report, or future research, to include interviews with consumers and with patients who have experienced complications linked to menstrual products, as well as broader samples of all stakeholder groups. That being said, this report is the first of its kind and aims to serve as a starting point.

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A gathering of existing research related to Health, Consumer Rights, and Environment

Historical warnings and scientific findings

Historical Alerts: high-absorbency tampons and toxic shock syndrome in the 1980s–1990s

Concerns over the health risks associated with menstrual products are not new. As early as the 1980s, the United States faced a major public health crisis that exposed both the biological complexity of menstruation and the regulatory void surrounding menstrual products. Over 800 women developed Toxic Shock Syndrome (TSS), leading to approximately 20 deaths, with investigations revealing a direct link to the use of high-absorbency tampons made from synthetic fibres (Shands, Schmid, Dan et al., 1980).

At the time, the absence of clear regulation or product standardisation prevented users from choosing tampons appropriate to their menstrual flow. This lack of guidance contributed to product misuse and prolonged retention, creating favourable conditions for *Staphylococcus aureus* bacterial proliferation. The episode demonstrated the potential for severe or fatal health outcomes linked to product design and information gaps, and underscored the need for comprehensive toxicological and microbiological oversight.

The tragedy also revealed the knowledge deficit surrounding menstrual physiology and the interaction between synthetic materials and the vaginal microbiome. It was a pivotal moment in public health awareness, yet decades later, many of the structural causes of that crisis remain unresolved, particularly the lack of transparent standards and harmonised regulation across jurisdictions.

Persistent Concerns: allergenic additives, scented products, volatile organic compounds, and nanoparticles

Following the TSS crisis, attention gradually expanded beyond microbiological hazards to the chemical and material composition of menstrual products. Research over the past two decades has identified a range of allergenic additives, fragrances, volatile organic compounds (VOCs), and nanoparticles used in both disposable and reusable products, many of which are not disclosed on packaging (AVICENN, 2022; Desmedt, Marcelis et al., 2020; Dio Ferreira, Galvão & Appoloni 2023; Marcelis, Gatzios, Deconinck et al., 2022; Lin, Ding, Meza-Wilson et al., 2020).

Allergenic additives have been detected in various product lines, leading to adverse effects such as burning, itching, and irritation. Yet, these substances often go unlabelled, preventing menstruators from identifying the source of their reactions or making informed choices. The problem is compounded in scented menstrual products, which may contain fragrance compounds with sensitising properties. A 2022 study found that the level of heliotropine emitted from one scented tampon exceeded safe exposure limits, posing a risk of allergic or irritant responses (Marcelis, Gatzios, Deconinck et al.).

The absence of ingredient disclosure on packaging remains a critical barrier to prevention and accountability.

VOCs, a category of chemicals that easily evaporate into the air, have also been identified in menstrual products (Lin, Ding, Meza-Wilson, et al., 2020). Commonly present in solvents, adhesives, and synthetic fragrances, VOCs can enter the body via inhalation or dermal absorption. Long-term exposure has been associated with reproductive toxicity, neurotoxicity, immune system disruption, and carcinogenic effects (Zhou, Zhou et al., 2023). Given the proximity of menstrual products to mucosal tissues and the regularity of their use, such exposures raise legitimate health concerns that merit further regulatory attention.

In parallel, the integration of nanotechnology into textiles, intended to enhance absorbency, odour control, or antimicrobial properties, has introduced new layers of uncertainty. While nanoparticles have been subject to regulation in food and cosmetics, their use in textiles, including menstrual underwear, remains largely unregulated. The French organisation AVICENN (2022) found nanoparticles present in several menstrual underwear brands, and Dio Ferreira, Galvão and Appoloni (2023) later confirmed that washing these garments can release nanoparticles into wastewater, leading to potential environmental contamination. Although the full toxicological implications are not yet understood, early evidence suggests that nanoparticles may migrate into the body through dermal or mucosal contact, warranting a precautionary approach.

Together, these findings demonstrate that the health risks associated with menstrual products are not isolated, exceptional, or purely anecdotical, but persistent and evolving. They point to systemic shortcomings in toxicological evaluation, chemical disclosure, and product design oversight. Despite growing scientific documentation, current regulatory mechanisms continue to treat menstrual products as ordinary consumer goods, leaving users unprotected from long-term, low-dose chemical and material exposure.

The "Cocktail Effect": chemical mixtures and cumulative risks

Beyond individual substances, a critical but still underexplored concern relates to the combined effects of multiple chemicals, often referred to as the *"cocktail effect."* Menstrual products rarely contain a single contaminant; rather, they typically comprise a complex mixture of phthalates, PFAS, pesticide residues, VOCs, chlorine by-products, and heavy metals (CHEM Trust, 2022; Martin, 2023 ; Martin, Scholze, Ermler et al., 2021).

Conventional risk assessment frameworks, whether in the EU, the US, or at international level, generally evaluate chemicals in isolation, setting exposure thresholds for each substance independently.

However, scientific research increasingly shows that when multiple chemicals interact, their effects can be additive, accumulating over time, or synergistic, where the combined effect exceeds the sum of individual risks. This phenomenon has been especially well documented for endocrine-disrupting chemicals, which can interfere with hormonal systems at very low doses.

The risk associated with menstrual products is magnified by three compounding factors:

1 → Mode of exposure : tampons, pads, and menstrual underwear are in direct and prolonged contact with mucosal tissue, which is significantly more permeable than skin. This allows for greater chemical absorption into the bloodstream (Farage, Lennon & Ajayi, 2011).

2 → Chronic use : menstrual products are used monthly over an average of 40 years, resulting in a sustained, long-term exposure to contaminants.

3 → Cumulative exposure : the substances detected in menstrual products add to background exposure from food, water, air, and cosmetics, creating a total chemical load that far exceeds what is considered safe for isolated substances.

Despite this, none of the studied regulatory frameworks (in the EU and in the US) currently integrate mixture effects into safety standards for menstrual products. The prevailing assumption remains that if each substance is below its individual threshold, the product as a whole is safe, a notion that scientific evidence now challenges.

The implication is clear: regulatory models that ignore mixture effects systematically underestimate real-world health hazards. Addressing this oversight is essential if the EU is to establish credible, health-focused safety standards that reflect actual patterns of exposure. Further research into cumulative risks and interactive chemical effects is urgently needed to guide evidence-based policymaking.

In summary, the accumulated evidence, from the TSS crisis of the 1980s to the recent detection of nanoparticles and complex chemical mixtures, illustrates a continuous trajectory of scientific warning and regulatory inertia. These findings collectively support the case for comprehensive, harmonised EU safety standards that fully account for toxicological, microbiological, and environmental dimensions of menstrual product safety.

The potential impact on health

General impact of hazardous materials

The cumulative exposure to hazardous substances through menstrual products could represent a multifaceted public health concern. Beyond immediate irritation or allergic reactions, growing toxicological evidence points to chronic, systemic, and reproductive effects resulting from long-term dermal and mucosal contact (Raef & Elmariah, 2021). Because these products are used repeatedly and in intimate proximity to permeable mucous membranes, even low-dose exposure to hazardous compounds may lead to bioaccumulation and cumulative physiological stress.

Recent analyses have detected heavy metals and per- and polyfluoroalkyl substances (PFAS) in menstrual products (Shearston, Upson, Gordon et al., 2024; Wicks, Brady, Whitehead et al., 2025). Heavy metals such as lead, cadmium, mercury, and arsenic are recognised carcinogens (Verma, Rachamalla et al., 2023). Even at low concentrations, they are associated with cancers of the lung, skin, liver, and gastrointestinal tract, and with neurological and developmental toxicity (Kim, Kim & Seo, 2015). Because menstrual products are used monthly for decades, this chronic exposure pathway is particularly concerning. Industrial processes continue to employ heavy metals in pigments, stabilisers, and manufacturing residues, allowing trace contamination to persist despite their known toxicity.

PFAS compounds, meanwhile, are persistent, bioaccumulative chemicals widely used for their hydrophobic and stain-resistant properties. Dermal exposure is among the most relevant routes for PFAS absorption, especially in contexts of prolonged mucosal contact (De Silva, Armitage, Bruton et al., 2021). Certain PFAS have been linked to reproductive and developmental disorders, immune suppression, hormonal disruption, and elevated cholesterol levels (Panieri, Baralic & Djukic-Cosis et al., 2022 ; United States Environmental Protection Agency [EPA], 2024b). However, their toxicological profile remains only partially understood because the PFAS family encompasses thousands of compounds with varying structures and potencies. While data on PFAS in menstrual products remain limited, all available studies indicate a consistent pattern of potential harm, amplified by the high permeability of vaginal tissues and the products' recurrent use.

Pesticide residues have been repeatedly found in tampons and pads (WEN, 2025; Weaving Voices for Health & Justice [Weave], 2013). Their presence stems from cotton cultivation and inadequate purification processes. Because the vaginal mucosa is highly vascularised and absorbent, even trace pesticide residues can cross epithelial barriers efficiently. Chronic exposure, even at sub-toxic levels, has been associated with a range of non-communicable diseases including Parkinson's disease, asthma, mental health disorders, ADHD, leukemia, and non-Hodgkin's lymphoma (Pesticide Action Network UK [PAN UK], n.d.). A systematic review by Shekhar, Khosya, Thakur et al. (2024) confirmed associations between long-term pesticide exposure and neurological impairment, endocrine disruption, and carcinogenesis. These findings underscore that "trace" contamination cannot a priori be deemed harmless when exposure is repeated, cumulative, and mucosal.

Nanoparticles present an emerging frontier of concern. Their size and high surface-area-to-volume ratio increase reactivity and biological penetration potential. Consumer exposure depends on the chemical composition and interaction of nanoparticles with textile fibres, coatings, or absorbent gels. Primary exposure routes include skin contact, inhalation, and ingestion (Almeida & Ramos, 2017). Moreover, disposal of nanoparticle-containing products can contribute to secondary human exposure through environmental contamination.

Research has shown that nanoparticles can provoke inflammatory responses in the lungs (Bonner, 2010) and may adversely affect the reproductive system (Xuan, Ju, Skonieczna et al., 2023). A study by Gholiof, Wessels, Foster et al. (2025) demonstrated that polystyrene nanoplastics disrupt ovarian function in mice, reducing progesterone levels, shrinking antral follicle size, and prolonging estrous cycles. These effects suggest possible endocrine and fertility implications for chronic human exposure. Given that menstrual products increasingly incorporate nanomaterials, whether as antimicrobial coatings or absorbent enhancers, these findings warrant precautionary assessment before market approval.

Each of these substance classes (heavy metals, PFAS, pesticides, and nanoparticles) poses distinct toxicological challenges. Yet their combined presence in menstrual products introduces mixture effects that are rarely evaluated in current risk-assessment frameworks. Chronic low-dose exposure to multiple contaminants can result in additive or synergistic toxicity, particularly affecting endocrine, reproductive, and immune systems. Studies of vulvar and vaginal conditions, such as chronic dermatitis and pruritus, highlight how chemical irritation compromises the epithelial barrier, thereby increasing susceptibility to allergenic and toxic agents (Raef & Elmariah, 2021). This interplay of chemical exposure and barrier dysfunction underscores the systemic vulnerability created by poorly regulated menstrual products.

While direct causal pathways remain under investigation, the convergence of toxicological evidence indicates that chronic mucosal exposure to hazardous materials may contribute to a spectrum of long-term effects, from local irritation and microbiome disruption to systemic endocrine and reproductive impacts. The paucity of longitudinal studies leaves uncertainty about dose-response relationships, but existing data justify adopting the precautionary principle in regulation and product design. Addressing these risks requires integrated safety standards that combine chemical restriction, transparent ingredient disclosure, and comprehensive testing for both acute and chronic outcomes.

Case studies related to reproductive health and other health conditions

The safety of menstrual products must be examined within the broader framework of reproductive health and other health conditions that disproportionately affect women and menstruators (such as cardiovascular diseases), where environmental and chemical exposures are increasingly recognised as significant determinants of chronic disease. Over recent decades, conditions such as endometriosis, polycystic ovary syndrome (PCOS), infertility, autoimmune diseases, and cardiovascular disorders have drawn growing attention due to their possible links with EDCs and other industrial pollutants (National Academies of Sciences, Engineering, and Medicine, 2024). These substances, commonly found in plastics, cosmetics, and personal care products, are now also being identified in menstrual products themselves, where compounds such as Bisphenol A (BPA) have been detected at measurable levels (Marroquin, Kiomourtzoglou et al. 2024). BPA is known to interfere with hormonal regulation, reproductive function, and immune balance, raising concern that menstrual products may serve as an additional source of exposure to chemicals already implicated in chronic health conditions. Understanding these associations is therefore essential to assessing how intimate product safety intersects with broader patterns of reproductive and systemic health inequities in the European context.

EDCs are compounds capable of mimicking, blocking, or altering natural hormones, thereby disrupting biological processes regulated by estrogens, androgens, and other steroid hormones (Zlatnik, 2016). Their interference has been linked to menstrual irregularities, infertility, metabolic disturbances, and hormone-dependent pathologies. One of the most studied examples is BPA, commonly used in plastic production. BPA exposure has been repeatedly associated with PCOS, a hormonal disorder that impairs ovarian function and is characterised by irregular ovulation, elevated androgen levels, and ovarian cysts (National Health System [NHS], n.d.; Zhan, Tang, Shen et al., 2023). People with PCOS have been shown to exhibit higher serum BPA concentrations, suggesting a possible causal link (Kandaraki, Chatzigeorgiou, Livadas et al., 2011; Hossein Rashidi, Amanlou, Behrouzi Lak et al., 2017). Mechanistically, BPA may stimulate androgen production and reduce insulin sensitivity, both key factors in PCOS pathogenesis (Rashidi, Amanlou, Behrouzi Lak et al., 2017). Furthermore, BPA exposure has been associated with a reduction in antral follicle count, signalling a diminished ovarian reserve and decreased fertility potential (Souter, Smith, Dimitriadis et al., 2013).

Evidence also implicates BPA in the development of endometriosis, a chronic condition characterised by the growth of endometrial-like tissue outside the uterus, causing inflammation, scarring, and pelvic pain (EndoFrance, n.d.). Animal and human studies suggest that BPA may promote the growth and persistence of ectopic endometrial lesions through estrogenic and immune-modulating mechanisms (Wilk, Ostrowska, Białka et al., 2017; Rashidi, Amanlou, Behrouzi Lak, Ghazizadeh, Haghollahi et al., 2017). Elevated BPA concentrations have been detected in the serum and peritoneal fluid of women with endometriosis compared to controls, supporting a dose-response relationship (Rashidi, Amanlou, Behrouzi Lak, Ghazizadeh & Eslami, 2017).

Phthalates, another group of plasticisers, have shown similar associations with reproductive and metabolic disorders. Found in food packaging, cosmetics, and medical devices, phthalates are known to disrupt estrogen and androgen signalling (Kalsi Rajashekara, Natarajan, Srinivasan et al., 2025). A case-control study in Korea revealed that plasma levels of phthalate metabolites were significantly higher in women with advanced-stage endometriosis, suggesting a potential role in disease progression (Kim, Chun, Chae et al., 2011). Laboratory research confirms that phthalates can induce oxidative stress and inflammation in endometrial tissue, potentially enabling lesion implantation and maintenance (Cho, Park & Han, 2015).

Beyond reproductive disorders, EDCs are increasingly implicated in autoimmune and cardiovascular diseases. Persistent exposure to compounds such as BPA and phthalates may lead to immune dysregulation, in part through chronic inflammation and oxidative stress (Rashidi, Amanlou, Behrouzi Lak, Ghazizadeh & Eslami, 2017; Kalsi Rajashekara Natarajan, Srinivasan et al., 2025). Epidemiological studies have identified associations between elevated BPA levels and hypertension, atherosclerosis, and coronary artery disease (Shankar, Teppala & Sabanayagam, 2012). These chemicals can impair lipid metabolism and vascular endothelial function, mechanisms central to cardiovascular health. Similarly, EDCs may alter immune responses, predisposing individuals to autoimmune conditions such as thyroiditis or systemic lupus erythematosus (Kuo, Yang et al., 2012).

Taken together, the evidence demonstrates that exposure to industrial chemicals, particularly BPA and phthalates, can affect multiple biological systems, from hormonal regulation to cardiovascular and immune balance. These findings suggest that menstrual products contaminated with such substances may contribute, even indirectly, to chronic health burdens already prevalent among women and people who menstruate. Addressing these risks requires not only further research but also comprehensive regulation, ensuring that the safety of menstrual products reflects their intimate, recurrent use and central role in public health protection.

Several scandals, no actions. Why?

The state of the research: overview of tests on period products (2002–2025)

Over the past two decades, an increasing number of scientific studies and NGO-led investigations have revealed the presence of hazardous substances in menstrual products. The evidence shows a consistent pattern: every new wave of testing identifies new categories of chemicals of concern, broadening the scope of health and environmental risks associated with these essential products.

The first scientific alerts originated in the United States. In one of the earliest peer-reviewed studies, DeVito and Schecter (2002) published in *Environmental Health Perspectives* confirmed the presence of dioxins and furans in tampons. These are persistent organic pollutants known for their carcinogenicity and endocrine-disrupting potential. Follow-up research in 2005 reinforced these findings, demonstrating that low-level dioxin contamination was consistent across multiple brands of tampons and pads (Archer, Mabry Smith, Shojaee et al., 2005). These early studies raised questions about whether bleaching processes and cellulose purification were responsible for the formation of such compounds.

By the early 2010s, civil society organisations began independently testing menstrual products. The NGO Weave released the Chem Fatale report in 2013, documenting a wide range of volatile organic compounds (VOCs), phthalates, and fragrance chemicals in pads and tampons, and criticising the lack of transparency and testing requirements (Weave, 2013).

In 2014, Weave published testing results for Always brand pads, identifying styrene, chloroform, and acetone, all further classified as possible or probable carcinogens by the US Environmental Protection Agency (EPA, 2024). At the same time, consumer associations in Hungary found phthalates, triclosan, and parabens in tampons and pads (Gergely, 2014).

In Indonesia, the Consumers Foundation (YLKI) revealed that all pads tested contained measurable chlorine residues, suggesting incomplete dechlorination during bleaching (The Jakarta Post, 2015). The Swiss Federal Office for Food Safety and Veterinary Affairs (2016) found dioxins, furans, and polycyclic aromatic hydrocarbons (PAHs) in tampons and pads, substances known for their mutagenic potential. In South Korea, the national Food and Drug Safety Administration tested 641 sanitary pads, identifying solvents such as carbon disulfide and methylene chloride, both associated with reproductive toxicity (Hojung, 2017). A study in China confirmed the presence of phthalates in multiple brands of menstrual pads (Chai, Han et al., 2018). In Argentina, independent researchers detected glyphosate and AMPA residues in commercial pads and tampons (Agencia Telam, 2015), raising concerns about pesticide exposure from cotton cultivation.

Europe's first systematic government-level assessment came in 2019, when the French Agency for Food, Environmental and Occupational Health & Safety (ANSES) conducted a large-scale investigation of tampons and pads. The agency confirmed the presence of volatile organic compounds (VOCs), phthalates, pesticides, and residues from manufacturing processes in nearly all tested products (ANSES, 2019).

The same year, the Swedish Chemicals Agency (Kemikalieinspektionen [KEMI], 2018) found formaldehyde, phthalates, and fragrance allergens in pads and panty liners, while Weaves (2018) published *What's in Your Tampon?*, reporting benzene, toluene, and other solvent residues in major US tampon brands.

Between 2020 and 2025, researchers and NGOs documented a new wave of contaminants, including PFAS, heavy metals, and nanoparticles:

→ In 2020, laboratory analyses in the United States detected PFAS in multiple brands of tampons, pads, and period underwear (Kluger, 2023).

→ In 2021, Martin et al. highlighted how the presence of PFAS and phthalates in consumer goods contributes to the overall human exposure burden.

→ Kim et al. (2015) and Verma et al. (2023) studied the impact of lead, cadmium, chromium, and arsenic on the human body, confirming the danger of heavy metal exposure.

→ AVICENN (2022) identified nanoparticles in menstrual underwear, while Dio Ferreira et al. (2023) found evidence that nanoparticles can leach into water during washing, contributing to environmental contamination.

→ In 2024, a study evaluating the presence of metals in tampons was published in the revue Environment International (Shearston, Upson, Gordon et al.). They tested 30 tampons and evaluated the concentration of 16 metal(loid)s. They found measurable concentrations of all the metal(loid)s tested, including toxic ones such as lead, cadmium, and arsenic. The researchers call for further studies and regulations requiring manufacturers to test for metals in tampons, given the potential health risks.

→ Most recently, in 2025, the Women's Environmental Network (WEN) published *Blood, Sweat and Pesticides*, documenting glyphosate and other pesticide residues in mainstream tampon brands available in UK supermarkets (WEN, 2025). This report confirmed that contamination persists even in products marketed as safe and hypoallergenic.

→ A study published in 2025 from researchers at the University of Notre Dame tested 59 reusable menstrual products from multiple geographical zones (South America, Europe and North America) for the presence of PFAS (Wicks, Brady, Whitehead et al., 2025). PFAS was detected in all of the tested products. That said, 71% of the products presented such a low amount of PFAS, that no additional capacity was given to the products which indicates that the PFAS was unintentionally added. While the study raises concerns about the perceived safety of reusable products, it also shows that the use of PFAS is not necessary.

Over the past two decades, research on menstrual products has moved from isolated toxicological findings to integrating chemistry, public health, environmental science, and consumer rights. Early studies in the 2000s focused on detecting dioxins and furans, establishing the first evidence that menstrual products were not chemically neutral (DeVito & Schecter, 2002; Archer, Mabry Smith, Shojaee et al., 2005). From the 2010s onward, the research landscape diversified revealing a progressively wider spectrum of contaminants.

This evolution marks a shift from proof of contamination to comprehension of cumulative risk. Studies have begun linking chemical findings with potential endocrine, reproductive, and systemic health impacts, while also highlighting environmental persistence and mixture effects (Martin, Scholz, Ermler et al., 2021; Martin, 2023). The field has also expanded geographically, as comparable contamination profiles have been found in North America, Europe, Asia, and South America, suggesting a global manufacturing and oversight problem rather than isolated local issues.

What the research has clearly brought is a scientific basis for regulatory concern. The accumulation of evidence across independent laboratories and national agencies demonstrates that contamination in menstrual products is recurrent, multi-origin, and preventable. It has revealed major data gaps, particularly concerning chronic mucosal exposure, mixture toxicity, and biological absorption dynamics, which are still underexplored.

A public concern

Alongside the accumulation of scientific data, the past five years have seen a significant escalation in media coverage, public debate, and civil society mobilisation around the safety of menstrual products. What was once a marginal or taboo subject has now entered mainstream discourse, increasingly framed as a public health, consumer rights, and gender equality issue.

Major media outlets in both the United States and Europe have reported prominently on the detection of hazardous substances in menstrual products, mainstreaming complex toxicological findings into more accessible narratives. Indeed, in France alone, a review of national press coverage between 2018 and 2025 identified over 50 published articles addressing menstrual product toxicity across outlets such as *Le Monde, Libération, France Info, France Inter, Marie Claire, and Le Figaro*. This sustained visibility has kept the issue within the public and political agenda, contributing to the framing of menstrual product safety as a legitimate public health and equality concern.

Here are a few articles in the EU and US that were critical in bringing public awareness:

→ In the United States, *TIME Magazine* published a widely read feature titled *"PFAS 'Forever Chemicals' Are Turning Up in Menstrual Products. Here's What You Need to Know"* (Kluger, 2023). The article reported the detection of PFAS in pads, tampons, and period underwear, drawing attention to potential links with cancer, reproductive disorders, and immune system dysfunction. By combining expert testimony with laboratory evidence, the piece reached a broad mainstream audience and helped normalise open discussion of menstrual product safety.

→ In France, the turning point came in 2018, when the ANSES report confirmed the presence of VOCs, pesticides, and phthalates in menstrual products. The findings received extensive national coverage: *Le Monde* published *"Des substances toxiques dans les tampons et les serviettes hygiéniques"* (Mandard, 2018), and *Libération* followed with *"Les substances cancérogènes dans certaines protections hygiéniques"* (Coulaud, 2018). Both outlets stressed that, although detected in trace quantities, these substances raised serious concerns about exposure and the absence of specific safety standards. The coverage prompted parliamentary debate, questions to the government, and growing public demand for transparency and regulation.

→ In Poland, around 2023 and 2024, Bartosiak (2023), writing for *Radio Zet*, along with *Medonet* (2024) and Bojanowska (2024) in *Gazeta*, reported on studies about the presence of heavy metals and PFAS in menstrual products, contributing to raising awareness on the matter. Kurowska reports, as early as 2018 in *O Feminin* and more recently, Suchocka (2024) for *Hellozdrowie*, raised awareness regarding the potential health risks posed by the presence of toxic substances in menstrual napkins and tampons, contributing to make the issue more visible in Poland.

→ In Sweden, several media outlets reported on the study detecting metals in tampons, which helped raise awareness about the issue (Berge, 2024; Dagens Nyheter, 2024; Jönsson, 2024; Qvarforth, 2024). Earlier, Schwartz (2023), for *Aftonbladet*, relayed warnings from the Swedish Chemicals Agency, which, after examining menstrual underwear, decided to ban four products.

→ In 2023, the Dutch magazine *Harpers Bazaars* raised concerns about the lack of transparency regulation in the Netherlands regarding menstrual products (Collombon, 2023). The article also draws attention to existing legislation in the USA for example and calls for stricter regulations in the Netherlands.

→ In 2024, *Slate France* contributed to sustaining public scrutiny with the article *"De l'arsenic et du plomb dans les tampons hygiéniques"* (Buscemi, 2024), which reported on studies revealing the presence of arsenic and lead in certain tampon brands. The investigation highlighted the risk of chronic exposure to toxic metals and contextualised the findings within broader international research on menstrual product contamination. The article generated extensive social media engagement, amplifying public concern and reinforcing calls for clear labelling requirements and independent product testing.

→ In 2025, the German newspaper *Stern*, published an article which gave an overview of the knowledge on menstrual products and toxic substances (Lanzke, 2025). The article also includes recommendations regarding menstrual products.

Meanwhile, media attention has begun to intersect with legal accountability. In 2024, multiple lawsuits were filed in the United States against manufacturers, including producers of *Carefree* branded pads, alleging that consumers were exposed to carcinogenic chemicals without proper disclosure. These developments illustrate how investigative journalism and public awareness can pave the way for judicial action, further reinforcing the demand for corporate responsibility and regulatory reform.

Such legal action illustrates both the litigation risk for companies and the regulatory risk for governments that fail to act. As product liability cases proceed through US courts, they are likely to generate new precedents and further push the industry towards reform, but also create reputational risks for regulators perceived as lagging behind public concern.

In the EU, although national and European mechanisms exist for reporting unsafe consumer goods, such as the EU Safety Gate system, their relevance to menstrual products remains limited (European Commission, n.d.). As highlighted by BEUC (the European Consumer Organisation), these mechanisms are insufficient to cover the full range of existing products and chemical risks currently on the market (Maurer, 2022). Moreover, public awareness of such reporting tools is extremely low, meaning that potential safety issues are rarely documented through official channels.

To better understand consumer experiences and perceptions, it would therefore be valuable to investigate public concerns through social media platforms, online forums, and digital communities. These spaces frequently capture fears, frustrations, and informational gaps that are not visible in formal complaint systems. For instance, while Safety Gate currently lists no alerts related to menstrual products, the Reddit threads analysed for this study generated between 95 and 250 responses each (HorrorAd4995, 2024 ; JoHansensButt, 2023) reflecting widespread public engagement with topics such as product toxicity, chemical contamination, and overall risk perception.

This discrepancy between official data and informal discourse suggests a disconnect between institutional monitoring and lived experience, underscoring the need for more participatory and transparent approaches to consumer protection.

Across both younger and older users, testimonies reveal a consistent pattern of dissatisfaction and anxiety regarding menstrual product safety, design, and accessibility. The most frequently cited issue is the lack of transparency and clear labelling, particularly concerning the presence of fragrances, chemical additives, and potential contaminants such as heavy metals or PFAS. Many users report feeling insufficiently informed about product composition and frustrated by the absence of reliable guidance from either brands or regulators.

Concerns about fit, comfort, and effectiveness are also widespread, especially among individuals with heavy flows or non-standard anatomies. Users often describe leakage, irritation, and poor product ergonomics as routine experiences, contributing to a sense that their needs are not adequately considered in product design.

While some users are turning toward alternative or reusable products, such as menstrual cups, discs, and period underwear, these are frequently described as expensive, inconvenient, or unreliable, particularly due to issues like washing burdens, sizing difficulties, and fear of leaks. As a result, many consumers feel caught between unsafe disposable options and impractical reusable ones.

Underlying these complaints is a broader feeling of neglect by industry and institutions. Women describe being left to navigate health and safety concerns largely on their own, often relying on informal peer networks or online communities to identify "safer" products. This erosion of trust in manufacturers and regulators is intensified by a lack of official clarity about what constitutes genuine health risk versus minimal exposure.

Ultimately, these concerns reflect more than product dissatisfaction: they illustrate a systemic failure of transparency, inclusivity, and accountability in the menstrual product market. Users expect products that are not only functional and affordable, but also safe, clearly labelled, and responsive to the diversity of their bodies and experiences.

Taken all together, these examples demonstrate that chemical safety in menstrual products is no longer a marginal or technical issue. It has evolved into a mainstream, politically resonant public concern, driving legislative inquiries, industry responses, and growing civic engagement.

Civil society mobilisation

Civil society organisations and grassroots movements have played a pivotal role in reframing menstrual product safety as an issue of health equity, consumer protection, and gender justice. Over the past decade, a series of national and European initiatives have sought to expose regulatory gaps, demand ingredient transparency, and call for stronger EU-level action.

In France, public mobilisation around menstrual product safety began in 2017 with a petition launched by Mélanie Doerflinger, titled *"Tampax, affiche ta composition"*, which gathered more than 250,000 signatures and pressured the manufacturer to disclose ingredient lists (Le Parisien, 2017). This early success demonstrated both the public's appetite for transparency and the potential of digital activism to influence corporate behaviour.

At the European level, the movement quickly gained momentum. In 2018, Zero Waste Europe, Hej! Support, and the #BreakFreeFromPlastic coalition launched an EU-wide campaign calling for toxic-free and reusable menstrual products to be prioritised within the *Single-Use Plastics Directive* (Zero Waste Europe, 2018). The campaign urged Members of the European Parliament to amend key articles of the legislative proposal so as to:

→ Ensure the widespread availability of reusable, safe menstrual products, particularly in large retailers and pharmacies.

→ Reduce hazardous substances in menstrual items to prevent exposure to chemicals linked with cancers and endocrine disorders.

→ Address menstrual poverty and plastic pollution jointly by linking environmental sustainability and gender equality in EU policy.

In 2020, citizen action further expanded through formal petitions to the European Parliament. Luxembourgish petitioner Kevin Reto Sequeira called for a dedicated EU legislative framework requiring manufacturers to disclose all components of menstrual products, noting that under the existing General Product Safety Directive (2001/95/EC).

That same year, the *"Bloody Manifesto"*, signed by over 30 European organisations and supported by 17 MEPs, urged the European Commission to guarantee the right to informed choice and access to safe, fair, and sustainable menstrual products (Zero Waste Europe, 2020). This collective statement positioned menstrual health at the intersection of consumer protection, gender equality, and the circular economy.

Civil society mobilisation continued at the national level. En 2023, Règles Élémentaires, La Fondation des Femmes, and Georgette Sand launched a petition entitled *"Affiche ta compo. Pour une vraie transparence sur la composition des protections périodiques"*, gathering over 20,000 signatures. The initiative renewed public debate and called for French regulation on menstrual product safety, building on earlier campaigns.

At the same time, new petitions were introduced within the European Parliament. In 2023, Clarisse Le Court petitioned the EU to classify menstrual products as medical devices, citing risks such as toxic shock syndrome and chemical exposure, and questioning whether current EU frameworks provide sufficient protection (Suvitha, 2025).
Scientific advocacy has also intersected with civil mobilisation. In Spain, a 2024 project by Rezero in collaboration with the Institute of Environmental Diagnostics and Water Studies (IDAEA-CSIC) revealed 19 plasticisers in ten samples of disposable menstrual products tested, out of 36 chemicals investigated (Rezero, 2024). The study called for greater corporate responsibility, transparency, and regulatory oversight, marking the first such investigation in Spain.

In the United Kingdom, the WEN launched the *"Toxic-Free Periods"* campaign in 2025, demanding chemical safety standards for menstrual products. The petition gathered more than 75,000 signatures and gained support from Members of Parliament, health advocates, and major civil society coalitions (Wen & PAN UK, 2025).

This growing mobilisation demonstrates that menstrual product safety resonates across constituencies, from individual consumers and parents to scientists, NGOs, and policymakers. It also underscores the political cost of inaction: continued regulatory neglect risks being perceived not as a technical delay, but as a failure of institutional responsibility toward women and people who menstruate.

Most importantly, civil society and media action have shifted the framing of menstrual product safety. The issue is no longer confined to the question of "chemical residues."

→ It is increasingly articulated as a multidimensional policy challenge, encompassing:

→ Public health, given the cumulative and long-term exposure to hazardous substances.

→ Consumer rights, centred on transparency and the right to know product composition.

→ Gender equality, as the burden of exposure falls exclusively on people who menstruate.

→ Environmental justice, since most disposable products contribute to persistent pollution.

→ This reframing is crucial. By connecting health, rights, and sustainability, civil society has effectively transformed menstrual product safety from a niche feminist issue into a mainstream public interest concern, one demanding coherent, gender-responsive EU regulation.

02

EU existing regulations, related risks and opportunities

Regulatory actions (EU and US comparison)

In order to analyse regulatory frameworks and actions, we wanted to put the EU context into perspective with another context. In the United States there have been, in recent years, changes to menstrual products regulations. This is an opportunity to study, analyse and learn from the US context. We will also show in this section, how much the regulatory contexts between the EU and the US vary, and can not therefore the lessons are not fully transposable.

What we came to notice first is that the regulatory response to the growing body of evidence has been fragmented and uneven on both sides of the Atlantic. While the United States has seen pioneering legislation at the state level, federal oversight remains limited. The European Union, in contrast, has produced scientific assessments and environmental initiatives, but has not yet adopted binding health-related rules for menstrual products. In 2019, New York State became the first jurisdiction in the world to require full ingredient disclosure on tampon and pad packaging (Senate Bill, S.2387-B/A.164-B). This marked a turning point in consumer rights: for the first time, product composition had to be made visible to the user. The disclosure model quickly inspired advocacy in other US states. Between 2020 and 2023, states such as California, Vermont and Minnesota went further, adopting legislation to ban intentionally-added PFAS in menstrual products (Amara's Law, 2023; Tampon Act A.B. 2515, 2024; Vermont Statutes Annotated, 2026). New Jersey is currently preparing a bill that will force manufacturers to list ingredients on menstrual products (Senate Bill S.3643). The bill passed the Assembly and is currently (as of December 2025) in its second reading by the Senate. These bills, which will take effect between 2025 and 2027, directly target the "forever chemicals" increasingly identified in independent testing. However, these legal protections remain state-based, creating a patchwork of rules that vary depending on geography.

At the federal level, the picture is less advanced. The US Food and Drug Administration (FDA) continues to classify tampons as medical devices and pads as consumer products, with safety oversight focused mainly on infection control (e.g. TSS risks). Recently, the FDA has signalled work on the development of new standards, but these remain in early stages and do not yet address the broad spectrum of chemical contaminants revealed by testing. In practice, this means that while state-level measures are setting precedents, federal regulation lags behind, and enforcement remains fragmented.

Recent developments in the United States further illustrate how the absence of a federal regulatory framework fuels consumer mistrust and litigation. In 2024, multiple class action lawsuits were filed against major manufacturers, including Procter & Gamble's Tampax brand, after independent testing revealed traces of lead, arsenic, and other heavy metals in tampons (Edwards, 2024). Plaintiffs argued that the company failed to disclose the presence of these toxic substances and misled consumers with claims of "purity" and "safety." The lawsuits also questioned the accuracy of "100% cotton" labelling, alleging that products contained synthetic components and undisclosed chemicals inconsistent with marketing claims (Bucher, 2024). Similar suits were brought in California and New York under consumer protection laws, demanding compensation and stricter disclosure standards. These legal actions have expanded the public debate beyond the question of TSS, focusing instead on chemical contamination, misleading advertising, and reproductive harm.

The litigation has also revealed the lack of consistent analytical protocols in the US: plaintiffs and independent laboratories often rely on non-standardised methods to detect contaminants, while manufacturers deny the presence of regulated chemicals. These procedural inconsistencies underscore the need for clear, science-based federal standards defining what constitutes "safe" levels of exposure for intimate products. Without such guidance, enforcement continues to rely on court decisions and settlements, which vary widely by jurisdiction and do not create universal precedents.

In Europe, responses have been similarly partial, but with a different emphasis. In 2018, France's ANSES opinion confirmed the presence of pesticides, phthalates, and VOCs in tampons and pads. Yet recommendations were limited to raw material controls, with no binding exposure limits. In 2023, France introduced a decree requiring manufacturers to list intentionally added substances in menstrual products (Loi n° 2023-1250, 2023, art. 40). However, this excludes contaminants, residues, and by-products, the very categories most often flagged by independent studies. Spain's 2023 Royal Decree on menstrual and intimate hygiene products (Ley Orgánica 1/2023, 2023) also marks a notable step forward within Europe. It remains insufficient, as while it highlights the importance of product safety—referring to products as "durable, organic, environmentally friendly, fast-degrading, reusable, and free from chemicals, in order to minimise their impact on the environment and on the health of women and other beneficiaries"—and explicitly recognises menstrual products as essential goods linked to health and dignity, it does not establish clear definitions or standards.

In parallel, the Joint Research Centre (JRC) is developing Product Environmental Footprint (PEF) criteria for menstrual products under the Sustainable Products Initiative. While these efforts align with the EU's circular economy objectives, focusing on waste reduction, carbon footprint, and resource efficiency, they do not yet integrate chemical safety or toxicity assessment. This highlights a persistent gap between environmental sustainability goals and health protection imperatives, particularly for consumer products that involve intimate or prolonged human contact.

As of 2025, neither the US nor the EU has adopted a comprehensive, harmonised framework that directly addresses the full spectrum of chemical contaminants in menstrual products. The US has pioneered disclosure and chemical bans, but mostly at the state level, while the EU remains tied to risk assessments and environmental initiatives that stop short of binding health protections. Both regions are moving, but in fragmented, partial ways that leave major regulatory gaps.

Which regulatory framework for the EU?

The current framework: general safety and chemical regulation

Menstrual products in the European Union are currently regulated under the General Product Safety Regulation (EU) 2023/988 (GPSR), which serves as the overarching framework for non-harmonised consumer goods. While this regulation strengthens the general safety obligations for products placed on the EU market, it does not establish specific standards for menstrual products, despite their unique mode of use, and potential for chronic exposure to chemical substances. As outlined in several recent parliamentary questions (Bricmont, 2025; Nordqvist, 2025; Scheuring-Wielgus, 2025), this absence of dedicated rules results in fragmented oversight and uneven consumer protection across Member States.

Under the GPSR, applicable from December 2024, manufacturers are required to ensure that all products they place on the market are safe. They must conduct an internal risk analysis, prepare technical documentation describing the product and its risks, and identify measures to mitigate those risks. National market surveillance authorities are empowered to verify compliance and, when necessary, withdraw unsafe products from the market (European Commission, 2025).

However, the GPSR's general nature means that risk analyses are entirely internal, based on each manufacturer's own standards and methodologies. In the absence of predetermined safety criteria, these evaluations vary widely between companies and are not subject to external validation. This regulatory approach places the burden of proof on consumers and national authorities, rather than on producers, and fails to guarantee consistency across the EU.
Chemical safety is primarily addressed under the REACH Regulation (EC) No 1907/2006, which harmonises restrictions on the production, the placing on the market, and on the use of hazardous substances. REACH allows restrictions to be proposed when a chemical poses an "unacceptable risk" to human health or the environment. Although REACH already bans some substances used in female hygiene products, such as dioctyltin (DOT) compounds, it does not systematically assess the thousands of chemicals that may be present in or migrate from menstrual products. Furthermore, the REACH revision process, initiated to improve health-focused evaluation, remains suspended as of early 2026, leaving these issues unresolved.

Emerging Initiatives: standardisation and industry self-regulation

The European Commission's recent responses to the European Parliament indicated that the Comité Européen de Normalisation (European Committee for Standardization) (CEN) was developing a CEN Workshop Agreement (CWA) aimed at defining a test method to assess the potential presence of trace chemicals in absorbent hygiene products. This deliverable, expected in 2024, was a technical step forward after years of debate over trace contaminants in such products. However, while CWAs can be used under Article 8 of the GPSR as reference tools for assessing product safety, they are voluntary and do not define toxicity thresholds or exposure limits. The CEN draft methodology focuses mainly on analytical precision rather than establishing what levels of contaminants are safe or unsafe (CEN, 2023).

Similarly, the EDANA (European Disposables and Nonwovens Association) guidelines, which remain the industry's de facto testing framework, prioritise product performance and user comfort, including leakage protection, softness, and ease of application, while neglecting long-term toxicological or environmental impacts (EDANA, 2022). Recent EDANA and CEN updates now include methods to detect trace chemicals such as dioxins, phthalates, pesticides, PAHs, and heavy metals, yet they continue to lack reference values, health-based criteria, or mandatory disclosure requirements. Consequently, these frameworks contribute more to technical standardisation than to consumer safety.

On the international stage, the International Organization for Standardization (ISO) Technical Committee 338 on Menstrual Products (established in 2022) represents a landmark initiative aimed at standardising menstrual products globally. According to ISO, the committee's scope covers "standardization in the field of menstrual products, covering all products intended for both single and multiple use, regardless of material." An article by the Stockholm Environment Institute highlights that this initiative responds to the absence of harmonised global standards for menstrual products—an oversight with implications for quality, equity and accessibility (Del Duca & Liera (2024).

The ANSI-published summary of TC 338's work reveals that the committee has identified enhanced provisions to limit harmful chemicals and aims to "improve product safety and quality of life during menstruation," while emphasising accessibility and consumer information. While this suggests that toxicological risk is on the agenda, the publicly available statements do not yet clarify the extent to which detailed chemical-residue thresholds, chronic exposure assessments, or endocrine-disruption metrics are central to the draft standard. For instance, the Sanitation & Hygiene Fund emphasises that the goal is to prioritise safety, accessibility and equity, particularly in low- and middle-income countries.

Thus, while the ISO/TC 338 initiative marks a significant advancement in regulatory attention to menstrual-product safety, its initial framing prioritises usability, classification, performance and access, rather than explicitly anchoring full toxicological risk assessment. The discourse points to chemical-safety as a future rather than fully realised component. In this sense, the standardisation effort should be seen as promising but still evolving, and not yet synonymous with comprehensive health-risk regulation.

The European Parliament has repeatedly raised this issue. In responses to MEP questions (Bricmont, 2025; Nordqvist, 2025; Scheuring-Wielgus, 2025), the European Commission confirmed that menstrual products fall under the general safety framework, and that enforcement relies primarily on market surveillance authorities. The Commission also noted that manufacturers must ensure safety "by design", but without harmonised toxicological benchmarks, leaving major inconsistencies in risk assessment across the Single Market.

Persistent gaps and regulatory fragmentation

The lack of harmonisation has created a regulatory patchwork that leaves consumers inadequately protected. Unlike medical devices or cosmetics, menstrual products are not governed by product-specific legislation that defines safety parameters, exposure limits, or labelling obligations. Regulation in the EU remains largely based on the "intended use" of chemicals, meaning that substances used in similar contexts (e.g., cosmetics vs. menstrual pads) may be assessed differently depending on the sectoral legislation in which they fall (Andreassen, Rudén & Ågerstrand, 2025). This approach results in inconsistent testing methodologies and divergent risk assessment outcomes, even for chemicals with comparable exposure pathways.

The CASP 2022 coordinated action (Coordinated Activities on the Safety of Products) identified these shortcomings explicitly. It recommended that the EU and Member States further investigate the cytotoxicity of hygiene products, continue market monitoring, and evaluate the option of regulating menstrual products at EU level. These recommendations reflect a growing consensus among regulatory experts that menstrual products merit dedicated classification and regulatory treatment, given their specific route of exposure and the cumulative risks identified in scientific research.

European instruments in focus : REACH, the EU Ecolabel, and other transparency initiatives

Beyond the GPSR, a few EU-level instruments partially address the chemical safety of menstrual products, but none of them is designed with these products' specific exposure profile in mind. The most relevant are the REACH Regulation, the EU Ecolabel scheme, and a series of emerging transparency and standardisation initiatives. Together, they form a patchwork of protections which, while useful, remain fragmented, voluntary in part, and insufficiently health-centred for products used in such an intimate and repetitive way.

Complementary policy tools, such as the EU Ecolabel, have begun to address some of the shortcomings in chemical oversight. The 2023 revision of the Ecolabel criteria for absorbent hygiene products (European Commission, 2023) introduced bans or restrictions on a non-exhaustive list of hazardous substances, including certain antibacterial agents, formaldehyde, parabens, endocrine disrupting chemicals and phthalates. This revision is supported by the JRC's preliminary report, which explicitly identifies biocides, fragrances and other chemicals of concern in absorbent hygiene products and records stakeholder calls for excluding endocrine disruptors and substances under REACH restriction from Ecolabelled products.

These changes are significant: they constitute some of the only EU-level criteria that explicitly connect absorbent hygiene products with concerns about chemical exposure, and they send a clear signal to frontrunner manufacturers about expected good practice. However, the EU Ecolabel's core mandate remains environmental. Criteria are primarily designed around life-cycle steps (resource use, waste generation, biodegradability, climate and circularity) rather than around chronic toxicological or reproductive health endpoints. In addition, the label is voluntary: only producers who choose to apply for the Ecolabel must comply, and as of 2025 there were fewer than 460 certified absorbent hygiene products, a fraction of the EU market.

For menstrual health, this means that Ecolabel criteria currently operate as an "upper tier" of good practice rather than a universal baseline. The label demonstrates that stricter substance restrictions and more transparent supply chains are technically and economically feasible, but its limited uptake and environmental emphasis mean that it cannot substitute for binding chemical safety standards tailored to mucosal exposure, cumulative use, and reproductive health.

In the meantime, chemical safety in the EU is governed primarily by the REACH Regulation, which harmonises the registration, evaluation, authorisation and restriction of substances placed on the market. REACH has already led to the restriction of some chemicals used in hygiene products, for instance, certain organotin compounds, but it does not systematically assess the thousands of substances and impurities that may be present in or migrate from menstrual products. Menstrual products, when considered as "articles", are covered only indirectly, through restrictions on specific substances of very high concern (SVHCs) or through generic restrictions when an "unacceptable risk" to human health or the environment has been demonstrated.

In practice, this substance-by-substance, risk-based approach struggles to account for the real-world exposure scenario of menstrual products: low-dose, chronic contact with highly vascularised mucosal tissues; repeated use over several decades; and exposure to complex mixtures of chemicals, including known or suspected endocrine dis-

ruptors and immunotoxicants. The current REACH toolbox does not systematically integrate mixture toxicity, endocrine disruption, or sex- and gender-specific vulnerabilities into standard information requirements or restriction triggers.

Civil society and health groups have repeatedly underlined this gap in the ongoing REACH revision debate, warning that delays and attempts to "streamline" the system must not weaken the EU's capacity to rapidly phase out the most hazardous chemicals, especially in products with intimate and long-term use. They call for health-protective upgrades such as a stronger generic risk approach (automatic restrictions for carcinogenic, mutagenic, reprotoxic and endocrine-disrupting substances in consumer products), clearer implementation of the "essential use" concept, and improved information requirements that systematically capture endocrine, neuro- and immunotoxic effects, as well as mixture and low-dose exposures (Health and Environment Alliance [HEAL], 2025).

In this context, menstrual products remain largely invisible. They are not recognised in REACH as a priority use category, despite the growing evidence base on their potential to contribute to chemical body burdens and to intersect with reproductive and gynaecological health. Under REACH, suppliers of articles containing SVHCs above 0.1 % weight-by-weight must communicate this information down the supply chain and, upon request, to consumers. In practice, this provision has limited impact on menstrual product users: only substances already identified as SVHCs are covered; information is not routinely displayed on packaging; and consumers must actively request details they rarely know they are entitled to. Therefore and as long as REACH continues to address menstrual products only indirectly, through broad article-level provisions and general substance restrictions, the specific exposure routes and vulnerabilities associated with menstruation will remain underregulated.

Recent national laws and decrees, for example, composition disclosure requirements in France and Spain for certain hygiene products, begin to fill this gap by obliging manufacturers to list ingredients and, in some cases, identify contaminants on packaging or online. These provisions, together with voluntary commitments and labels, are important first steps towards meaningful menstrual product transparency. Yet they remain uneven across the EU, are not harmonised in format or depth, and only very partially integrate health-relevant information such as toxicological profiles, endocrine activity, or cumulative exposure considerations.

From the perspective of menstrual health, the current configuration of complementary instruments creates a structural imbalance. The EU Ecolabel shows what is possible but is voluntary and largely environmentally framed; REACH offers a powerful but underused lever for targeting the most hazardous chemicals in menstrual products; and transparency mechanisms are fragmented, reactive, and often difficult for consumers to navigate. Under this system, the burden of proof continues to rest disproportionately on users, NGOs, researchers and market surveillance authorities to detect and demonstrate harm, rather than on manufacturers to proactively demonstrate safety for a product that is both essential and repeatedly used in intimate contact with the body.

A strengthened, health-centred approach would therefore require not only making better use of REACH, by explicitly prioritising menstrual products as a high-concern use case for certain substance groups, but also aligning all transparency initiatives with this objective. In other words, complementary instruments should converge towards a common goal: ensuring that all menstrual products placed on the EU market meet minimum standards of chemical safety, reproductive health protection, and environmental sustainability, rather than leaving these protections to voluntary schemes and market goodwill.

Toward a coherent EU framework

As the current EU regulatory system does not adequately address the specific risks associated with menstrual products, obligations remain vague, fragmented, and largely voluntary, leaving major gaps. A strengthened framework is therefore needed: one that formally designates menstrual products as a category in their own right and establishes clear, health-focused requirements. To achieve this, a reformed EU regulatory approach, supported by dedicated budgets, programmes, and Member-State action, is essential.

In the following section, we highlight three key pillars that could support a more coherent and comprehensive approach. They do not cover the full range of possible regulatory interventions, but they outline the foundations for a more consistent and health-protective framework.

1. Fund research, innovation, and scientific evidence generation

A major barrier to effective regulation remains the lack of coordinated, publicly funded research on menstrual products, their chemical composition, and their long-term health impacts. Future EU research and innovation frameworks (Horizon Europe program and its successor) should explicitly include menstrual health as an eligible theme, funding interdisciplinary studies on toxicology, materials science, exposure pathways, user experience and circularity models for menstrual care.

Strengthening the evidence base also requires:

→ Comprehensive studies on all ingredients and detected contaminants, including residues, processing chemicals, adhesives, dyes, inks, fragrances, biocides, and by-products formed during manufacturing.

→ Research to inform harmonised labelling requirements across all Member States, ensuring comparability between disposable and reusable products and reducing the current information asymmetry faced by consumers.

→ The creation of an EU-wide public database compiling results from independent product testing, ingredient disclosures, compliance checks, and reported incidents—accessible to consumers, researchers, and policymakers to enhance transparency and enable external scrutiny.

Such a system would shift menstrual product oversight from opaque, PR-driven communication to evidence-driven policymaking.

2. Health-focused risk assessment and harmonised testing

A second pillar concerns the development of harmonised testing and toxicological standards that reflect the specific exposure scenario of menstrual products.

This should include:

→ EU-level toxicological benchmarks for contaminants and residues, aligned with REACH, the Chemicals Strategy for Sustainability (CSS), and endocrine disruptor criteria.

→ Integration of mixture toxicity, chronic exposure, and mucosal absorption into testing protocols, moving beyond traditional acute, single-substance assessments that fail to capture real-world risks.

→ Cross-institutional collaboration, between ECHA, EFSA, JRC, DG SANTE, and DG ENV, to establish coherent safety thresholds and robust test methods tailored to menstrual products' unique exposure pathways.

This shift would finally recognise menstrual products as a category requiring enhanced scrutiny due to prolonged, recurring contact with highly permeable tissues.

3. Accountability, monitoring, and enforcement

A third pillar concerns improving market accountability and reducing the current over-reliance on consumer vigilance and civil-society testing.

Key elements include:

→ Rebalancing the burden of proof toward manufacturers, who should be required to provide independent safety data prior to market entry or continued sale.

→ Expanding CASP (Coordinated Actions on the Safety of Products) and promoting the Safety Gate to explicitly cover menstrual products, enabling rapid alerts, cross-border enforcement, and coordinated recalls where necessary.

→ Supporting national market surveillance authorities through harmonised testing methodologies, dedicated funding, and stronger cross-border cooperation tools, so that enforcement reflects the realities of a single market.

This approach would shift from reactive, fragmented oversight to a preventive, health-centred system. Therefore, by adopting a framework grounded in robust research, harmonised testing, and strengthened accountability, and by finally recognising menstrual products as a distinct regulatory category, the EU could ensure that menstrual-product safety is comprehensively and consistently addressed. This would fill a longstanding policy gap and affirm menstrual health as an important European matter.

Health and environment should be part of the requirements

As highlighted previously, there are currently no EU-wide guidelines ensuring transparency or safety in the composition, production, and disposal of menstrual products. This regulatory gap, nurtured by years of inertia, limited state and EU-funded research, and the absence of a precautionary principle, has resulted in products whose health and environmental impacts remain largely unassessed. The lack of integration between chemical safety, waste policy, and consumer protection creates a vacuum in which both human and environmental health are at risk. Addressing this dual dimension, health and ecology, is essential to designing a truly sustainable regulatory framework for menstrual products in the European Union.

The ecological impact of menstrual products

Menstrual products represent a substantial and often overlooked environmental burden, both in production and disposal. Most disposable pads and tampons contain up to 90% plastic, derived from petroleum-based materials such as polyethylene and polypropylene (UNEP, 2021). A single menstruating person may use between 5,000 and 15,000 products over their lifetime, generating up to 150 kilograms of waste, much of which is non-recyclable and ends up in landfills or marine environments (Women Engaged for a Common Future International [WECF], 2020). The carbon footprint of a typical disposable menstrual product, including raw material extraction, manufacturing, packaging, and end-of-life treatment, can exceed 5.3 kg CO_2-equivalent per user annually (The Eco Guide, 2016).

A 2021 UNEP meta-study found that tampons and pads rank among the most polluting single-use plastics globally, alongside cigarette butts and food packaging. In addition to plastic pollution, menstrual products contribute to chemical contamination: bleaching processes and additives release dioxins, phthalates, and PFAS into the environment during manufacture and decomposition. As Professor

Graham Peaslee notes, "In a landfill, 100% of the PFAS will come out—they never break down." These "forever chemicals" contaminate soil and water systems, persisting for decades and re-entering human exposure cycles through food and drinking water.

Reusable menstrual products, while often promoted as sustainable alternatives, do not necessarily stand up to environmental scrutiny. Life Cycle Assessments (LCAs) show that menstrual cups and reusable pads have far lower carbon and waste impacts compared to disposables, reducing waste by up to 99% (Fourcassier, Douzieh et al., 2022), but raise new regulatory challenges. These items fall under textile regulations, meaning they are not tested for chemical safety or durability and can contain harmful substances such as nanoparticles, dyes, or PFAS coatings (Detcheverry & Nouvellon 2022). In the absence of product-specific standards, consumers are left without assurance that these "eco-friendly" alternatives are chemically safe.

Efforts to recycle menstrual waste remain rare and technically complex. Innovations are emerging, such as Indian start-ups that convert used sanitary pads into hygienic pulp or plastic granules (World Economic Forum, n.d.), yet these remain experimental and unscalable within current EU waste frameworks. The Stockholm Environment Institute (Del Duca & Liera, 2024) stresses that without extended producer responsibility (EPR) mechanisms, municipalities bear the full cost of menstrual waste collection and processing. A circular approach to menstrual health requires systemic reform, aligning product design, collection, and recycling under an integrated EU waste and chemical policy.

In practice, environmental standards for menstrual products should therefore include:

→ Lifecycle assessment (LCA) requirements as part of product approval, incorporating CO_2 emissions, water use, and waste generation.

→ Extended producer responsibility (EPR) obligations mandating that manufacturers finance collection, recycling, or disposal systems.

→ Eco-design incentives, such as EU funding and fiscal advantages for products that are reusable, compostable, or made from non-toxic and biodegradable materials.

→ A further opportunity lies in creating a specific regulatory category for reusable menstrual products. This would enable harmonised testing for chemical safety, durability, and environmental performance, ensuring that sustainability does not come at the expense of human health.

Health and environmental responsibility as a human rights matter

The intersection between health, environment, and human rights is increasingly recognised as a defining challenge of our time. The European Union identifies the protection of human dignity, equality, and health as central to its human rights and democracy agenda (European Union, 2010). These commitments imply not only safeguarding civil and political rights but also ensuring equitable access to a healthy environment, safe consumer goods, and adequate healthcare. The World Health Organization (WHO) affirmed in 2024 that menstrual health is a fundamental human right, intrinsically linked to the rights to health, education, work, and non-discrimination (WHO, 2024). Ensuring that menstrual products are safe, transparent, and accessible is therefore not a matter of consumer policy alone—it is a matter of human rights fulfillment.

Within this framework, menstrual health must be recognised as both a public health and environmental justice issue. Several publications and researches (The Lancet Regional Health- Americas, 2022) underlined that inadequate menstrual health management contributes to gender inequality, poor mental health, and exclusion from education and employment. In the EU, these challenges are compounded by exposure to hazardous chemicals and unequal access to safe products. Marginalised populations, including migrants, low-income individuals, people with disabilities, Roma communities, LGBTQIA+ persons, and adolescents, are disproportionately affected. They often face limited affordability and availability of non-toxic menstrual products, reduced access to information about product safety, and heightened vulnerability to environmental pollutants. When menstrual products contain or release hazardous substances, the resulting health risks intersect with existing social inequalities, further excluding those already most at risk.

The link between environmental responsibility and human rights has been clearly established in international law. The 2025 advisory opinion of the International Court of Justice (ICJ) reaffirmed that states have a legal duty to prevent serious environmental harm and to ensure accountability for corporate actions within their jurisdiction. In the European context, this principle directly applies to menstrual product safety: governments are responsible for protecting citizens from toxic exposure, ensuring that commercial activity does not endanger reproductive or environmental health. Pollution and chemical contamination can no longer be viewed solely as ecological problems : they are violations of the right to health, as recognised under the EU Charter of Fundamental Rights and multiple United Nations human rights instruments.

Events such as Health Day at COP28 (2023) highlighted that exposure to industrial chemicals and persistent pollutants constitutes a global public health emergency. Menstrual products, used by approximately half of the EU population, offer a clear and immediate policy entry point for integrating environmental and health governance. Yet, despite the EU's commitments under the Zero Pollution Action Plan and the Chemicals Strategy for Sustainability, menstrual health remains outside their operational scope. This omission perpetuates a cycle where the right to a healthy environment is unevenly protected, particularly for those already marginalised by gender, income, or social status.

Reform must therefore move from voluntary initiatives to binding legal obligations. Protecting health and the environment should be a statutory requirement for all menstrual products marketed in the EU. Comparable sectors (such as toys, cosmetics, and medical devices) already benefit from specific chemical safety frameworks, including nanomaterial regulation. Yet menstrual underwear and reusable pads, classified under textiles, remain entirely unregulated in terms of chemical content and toxicological impact (Almeida & Ramos, 2017). This inconsistency violates the EU's own principles of equality and precaution, leaving a significant regulatory blind spot.

Ultimately, recognising menstrual health as a human right requires integrating health protection, environmental sustainability, and equality into EU policy. It means affirming that all individuals, regardless of gender, income, or status, have the right to safe, sustainable menstrual products and to an environment free from chemical harm. Embedding these principles into EU legislation would align with both the Union's human rights obligations and its Green Deal objectives, positioning Europe as a global leader in human-centred, sustainable regulation.

The opportunity for EU leadership to promote healthy and durable menstrual products

Defining what constitutes a *healthy menstrual product* requires first acknowledging the current scientific uncertainty surrounding chemical exposure, product composition, and long-term health outcomes. As shown throughout this report, menstrual products may contain or release substances such as phthalates, PFAS, dioxins, VOCs, and heavy metals, which can act as endocrine disruptors or toxicants. Yet, despite this growing evidence, systematic toxicological assessments remain scarce, and regulatory monitoring is fragmented across the European Union. The absence of harmonised standards and the limited number of independent studies mean that safety claims currently rely largely on industry self-assessment rather than verified scientific data. In this context, the precautionary principle, a cornerstone of EU environmental and health policy, must guide future regulation: when credible evidence of potential harm exists, a lack of complete scientific certainty should not justify inaction.

A truly healthy menstrual product should therefore be understood not only as one that performs effectively and comfortably, but also as one that is biologically safe, non-toxic, transparent, and environmentally responsible throughout its life cycle. Such a product would minimise user exposure to harmful chemicals, avoid persistent or bioaccumulative substances, and be produced under conditions that prevent contamination at every stage, from raw material sourcing to end-of-life disposal. It would also ensure full ingredient disclosure and independent verification of its safety profile. However, before the EU can define such standards, there is an urgent need for comprehensive, publicly funded research into both the health and environmental impacts of menstrual products.

This research should include longitudinal studies on exposure through vaginal and dermal absorption, mixture toxicity assessments, and evaluations of cumulative low-dose exposure, areas that remain largely underexplored in current academic and regulatory frameworks.

From a regulatory perspective, a healthy menstrual product framework should combine precautionary regulation with evidence-based safety thresholds. Some initial recommendations for future EU health and safety standards may therefore include:

→ Prohibition of hazardous additives, including intentionally added PFAS, phthalates, and synthetic fragrances;

→ Setting Maximum Residue Limits (MRLs) for pesticides, dioxins, VOCs, and heavy metals, with safety margins that account for cumulative and mixture effects;

→ Mandatory third-party toxicological testing prior to market entry, replacing voluntary manufacturer declarations and ensuring independent verification of safety claims;

→ Full ingredient and contaminant transparency, allowing consumers and regulators to make informed choices; and

→ Integration of environmental metrics, such as carbon footprint, biodegradability, and end-of-life safety, ensuring that ecological sustainability complements chemical safety.

In other words, before menstrual products can be certified as *"healthy"* or *"sustainable"*, their safety must first be scientifically defined, independently assessed, and transparently communicated. A recent study highlighted that even products marketed as *"eco-friendly"* or *"organic"* vary widely in composition and that consumers currently have little means of verifying the absence of harmful residues (Wicks, Brady, Whitehead et al., 2025). Establishing a health-based regulatory standard, anchored in the precautionary principle and supported by robust scientific evidence, would not only protect users' health but also strengthen public trust, environmental responsibility, and gender equality in consumer protection policy.

Today's fragmented regulatory framework presents the European Union with a unique opportunity to lead globally in menstrual product safety, health, sustainability, and human rights protection.
Establishing binding health and environmental standards would not only protect millions of EU consumers but also position the Union as a pioneer in integrating gender, health, environmental, and human rights policy.

A dedicated EU framework could:

→ Set global benchmarks for toxic-free, climate-responsible menstrual products;

→ Promote innovation in eco-safe design and circular materials;

→ Embed human rights principles—including the right to health, information, and a safe environment—into regulatory and market standards; and

→ Demonstrate the EU's commitment to gender-responsive environmental governance, aligned with the *European Green Deal, the Chemicals Strategy for Sustainability*, and the forthcoming *EU Gender Equality Strategy 2030*.

Recognising menstrual health as a fundamental human right, as affirmed by the World Health Organization (2024) and reflected in the EU's Charter of Fundamental Rights, provides the ethical and legal foundation for this transformation. Access to safe and sustainable menstrual products should be treated as part of the right to a healthy environment, bodily integrity, and non-discrimination. A rights-based EU framework would thus not only regulate the safety of menstrual products but also ensure equity in access, affordability, and protection from harm.

Ultimately, menstrual products encapsulate the broader challenge of aligning consumer safety, environmental responsibility, and gender equity within a human rights framework. By embedding health, environment, and rights as core regulatory requirements, the European Union can transform a long-neglected issue into a cornerstone of its social, ecological, and human rights transition, setting a global standard for what safe, transparent, and sustainable menstrual health truly means.

03

Perspectives and further recommendations

Throughout the interviews conducted with scientists, manufacturers, MEPs and civil society representatives, a recurring observation emerged: the question of toxic substances in menstrual products sits at the crossroads of public health, environmental sustainability, industrial responsibility, and social justice. Far from being an isolated concern, it forms part of a broader reflection on how chemicals are produced, used, and monitored in modern economies. The air we breathe, the water we drink, and the products we apply to our skin all contain traces of industrial chemicals. Menstrual products are thus a mirror of systemic chemical exposure, raising the question of how societies can transition to safer, more transparent production systems.

Across all interviews, four key priorities were consistently identified, that will be further detailed here :

1 → Funding more independent research and large-scale studies.

2 → Creating a legal framework for regulation and transparency.

3 → Establishing clear labels and standards to inform consumers.

4 → Reinforcing the involvement of civil society to increase visibility and accountability.

These four areas are interdependent. Research generates the evidence needed for regulation; regulation creates incentives for innovation; standardisation supports consumer trust; and civil society ensures continued scrutiny. Together, they form the foundation for a coherent European response to menstrual product safety.

Funding more studies

The cost of science

Every stakeholder emphasised the acute lack of publicly funded, independent research on menstrual products. Current studies are limited in scale, often exploratory, and rarely funded at levels sufficient to establish health thresholds. As Professor Graham Peaslee highlighted, the detection of harmful substances such as PFAS requires costly, highly specific testing methods. "There is no universal test for toxics," he explained. "You need to know what you are looking for—and every additional chemical means another targeted test, another cost." This situation creates a structural dependency on short-term or industry-linked research projects, which limits the breadth of results and may slow regulatory response.

The challenge is both financial and methodological. As Nicolas Tessandier from the Alfred Fournier Institute observed, even well-resourced studies struggle to meet the level of funding required for large-scale population analysis. "Together with Samuel Alizon's team and collaborators, we are conducting a clinical study with 150 participants," he said. "It's a great start, but still far too small if we really want to understand how these products affect health." Comprehensive epidemiological or longitudinal studies remain absent, meaning that existing data cannot yet establish safe thresholds for exposure or account for mixture effects.

Research gaps and methodological challenges

Another major gap repeatedly raised in interviews concerns the lack of a model that accurately replicates the vaginal mucosal membrane. Most current toxicological tests rely on dermal models or animal data, which do not reflect the unique permeability of vaginal tissue. This limitation may lead to a systemic underestimation of risk. Several interviewees, including researchers from the University of Montpellier, stressed the need for new in vitro and in vivo models tailored to mucosal exposure.

This absence of adapted methodologies undermines the credibility of safety assessments. As one toxicologist explained, "regulations are based on skin tests, not mucosal tests; yet menstrual products are used on one of the most absorbent parts of the human body." Developing such models would not only improve health risk evaluation but could also serve as a reference for future EU guidelines. Helen Lynn (Women's Environmental Network), noted that "nobody really knows the true impact on health even though we know what these [toxic substances] can do, in small amounts. I think there's a lot we don't know, we know more about the stratus of the moon than we do about the side of vagina and I think that really needs to change". Several toxic substances were found in menstrual products but due to the lack of research on that specific area, we cannot be sure of the concrete health effect, even though we know that these products in other contexts are toxic.

Collaboration and interdisciplinarity

All experts interviewed agreed that collaboration is key. Addressing menstrual product safety requires a cross-sectoral approach combining chemistry, toxicology, reproductive health, sociology, and ethics. This is not only a question of measuring exposure but also of understanding social behaviour, gender inequalities, and access to safe alternatives. "We live in a world full of chemicals," Peaslee noted, "so maybe a completely toxin-free product is unrealistic, but we can at least measure and minimise the risks, and that starts with knowledge."

Researchers called for a European task force that would unite laboratories, public health agencies, and manufacturers around a shared research agenda. Including producers in this dialogue is also vital, as they can provide insights into supply chains and production feasibility. However, as civil society experts such as Helen Lynn pointed out, this collaboration must not compromise independence: "Industry expertise is essential, but research must be led by the public interest."

Creating a legal framework for regulation and transparency

Regulation and the limits of current practice

Interviews with manufacturers revealed a striking lack of regulatory guidance. Under current EU law, menstrual products falling under the GPSR 2023/988, obliges manufacturers to ensure that their products are "safe" but does not specify what this means in practice. As Eduard Farré, a manufacturer, noted "in Europe, the only thing we have to fulfil as a manufacturer is to put a safe product on the market. But nobody tells me how I have to think about what is safe in my product." Similarly, Stefanie Malchow from the German company VYLD described the lack of clear testing requirements : "your product shouldn't do any harm, but it's not really regulated what 'harm' means or from what threshold. When you go testing for toxic substances, every lab will ask: 'What are you looking for? And that's up to the individual manufacturer what they deem worth looking for."

This regulatory ambiguity creates uncertainty even for conscientious manufacturers seeking to produce safe, sustainable products. The current framework effectively delegates risk assessment to private companies, without harmonised testing standards or mandatory disclosure rules. As Nicolas Tessandier summarised, "Menstrual products are not classified as medical devices. As such, they are therefore not subject to a risk assessment, despite their prolonged contact with the skin and mucous membranes... " Helen Lynn reinforced this idea as she mentioned that "Basically manufacturers can add anything to the product they produce. There's no proper testing by governments." and the WEN "believe there should be independent testing of these products before they're released onto the market", which highlights the urge for more regulations and testing, to make sure the products are safe.

The EU should enforce stricter regulations on menstrual products, especially given that studies have found toxic substances in them. As Saskia Bricmont, a Green MEP, highlights: "If we don't manage to obtain a ban on this, then what we must achieve is strict regulation of what can be contained in period products."[1]

Rethinking regulation and holding manufacturers accountable

Today, not only are there virtually no specific regulations, but the way the EU currently operates does little to hold manufacturers accountable for the products they sell. The burden of proof must be shifted.

To go even further, the expert Marianthi-Anna Kioumourtzoglou, who notably participated in the study that found heavy metals in tampons, called for a fundamental rethink: "We need to start rethinking the process from the beginning. Can we create a product that can be safe, that doesn't contribute to landfill volume and that we can use and potentially reuse without having to risk toxic exposure or infections?" Esther Vogel, who notably worked on the French transparency directive, raised a similar concern: "The liability that applies to products is product liability for defective products. A product is considered defective under European regulations if it does not provide the safety that can reasonably be expected. After that, proving that a product is unsafe and has a safety defect is where it becomes very complicated"[2]. This was further reinforced by MEP Saskia Bricmont who suggested a shift in the burden of proof: "It should be up to the manufacturer to prove that their product is safe for health and the environment in order to obtain a marketing authorisation."[3]

The case for transparency

Across the interviews, transparency emerged as a universal demand. With few exceptions (France, Spain, and certain U.S. states) manufacturers are not required to disclose any ingredients or contaminants. For a product used internally and over several decades, this lack of information is unacceptable. The MEP Saskia Bricmont emphasises this issue "Transparency is a major concern at the European level. And so the very basics are that the products are clearly labeled, with full transparency for consumers. Yet that is far from the case, because we don't know which substances are present in period products."[4]

Public authorities must therefore establish clear, mandatory transparency rules including:

→ full ingredient lists, covering intentionally added substances, contaminants, and residues;

→ publicly accessible safety documentation;

→ standardised labelling to ensure comparability across EU markets.

These measures should be complemented by independent risk assessments, using relevant exposure models. For example, future EU guidance could mandate testing on vaginal tissue models to reflect realistic absorption pathways.

1 - The original quote was in French : " Si on n'obtient pas une interdiction à ce, ce qu'il faut que l'on obtienne, c'est de réguler strictement ce qui ce qui peut être contenu dans les produits hygiéniques."
2 - The original quote was in French : "La responsabilité qui s'applique pour les produits, c'est la responsabilité du fait des produits défectueux, un produit, il est défectueux c'est une réglementation européenne à partir du moment ou il n'a pas la sécurité à laquelle on peut légitimement s'attendre après pour prouver que un produit n'est pas sécure et a un défaut de sécurité, c'est là ou c'est très compliqué".
3 - The original quote was in French : "Il faut qu'on arrive à inverser la charge de la preuve. C'est au fabricant à prouver que son produit est bon pour la santé et l'environnement, pour qu'il obtienne une une autorisation de mise sur le marché"
4 - The original quote was in French : "Mais la transparence est une préoccupation majeure au niveau européen. Et donc le b a ba, c'est que les produits soient clairement étiquetés, renseignés en toute transparence pour les consommatrices ici en l'occurrence. Et c'est loin d'être le cas puisqu'on ne sait pas quels sont les produits qui sont dans contenu dans les produits périodiques"

Such a framework would allow manufacturers to compete on safety, not opacity, and would prevent the misleading marketing of "natural," "pure," or "organic" products that may still contain hazardous substances. As Peaslee pointed out, "We've seen PFAS-free claims that were not true—not necessarily out of deception, but because companies themselves didn't know what was in their supply chains."

Reusable protections: opportunities and cautions

Reusable menstrual products are often promoted as a sustainable alternative to single-use pads or tampons. Yet recent studies, including those cited by Peaslee, show that many reusable products, such as period underwear, contain PFAS or other industrial residues. The positive finding, he noted, is that some products achieved non-detectable PFAS levels, proving that safe manufacturing is possible when intentional PFAS use is avoided. Moreover Helen Lynn raises concerns when, for example, period pants are in "synthetic materials, then there's issues around odour because the synthetic materials capture more odour. So that means the manufacturers feel they have to introduce antimicrobials and fragrances", which implies adding toxic substances and the cycle repeats itself.

However, reusables present new challenges. They require access to clean water for washing, which is not guaranteed for all menstruators. They may also be unsuitable for people with heavy flow or those experiencing precarious living conditions. Safety and accessibility must therefore be treated as joint priorities. Reusable products should be subject to the same toxicological testing as disposables, including assessments of fabric treatment chemicals, dyes, and nanomaterials.

Establishing labels and standardisation

The promise and limits of standardisation

Standardisation can serve as a first step toward safer products. The ongoing development of ISO standards for menstrual products, referenced by Cohitec, is a positive sign of institutional engagement. It is the first initiative to standardise menstrual products. Since no standards previously existed, the ISO Committee began by establishing basic safety requirements, as explained by Jenny Acaralp, a representative: "So actually our starting point has been to start with the general and safety requirements. And so this is really what we are looking into currently. And that includes, or the main focus there is the consumer focus." Jenny also noted that attention was paid to recent studies, even mentioning "a list of possible ingredients and the limit values of those" as "something that will be included in the standard." However, as several interviewees warned, the process risks being captured by industrial interests. Participation fees are high, limiting access for NGOs and independent experts, and draft standards often prioritise technical performance (absorbency, comfort, discretion) over chemical safety. Given the lack of data, the Committee must rely not only on available evidence but also on the expertise of its participants. However, there is no quota system in place to ensure a balanced representation of stakeholder perspectives.

Without robust public oversight, there is a risk that new standards will codify the status quo rather than challenge it. As the CHEM Trust note observed, "Voluntary guidelines without enforcement mechanisms tend to reinforce existing market practices rather than improve consumer safety."

Labels as tools for empowerment

Product labels can act as powerful instruments for both consumer education and market transformation. As Graham Peaslee explained "doing public reports is the first step, because once the consumers are educated, there's a quick way of making change, market pressure. If seven companies exist and one is PFAS-free, they will have the market edge."

Labels such as "PFAS-free", "non-toxic", or "chemically tested" could push companies to reformulate products and clean up their supply chains. However, this only works if labelling criteria are verifiable and enforceable. MEP Saskia Bricmont made a similar claim, making a parallel with already existing labels and how they can empower consumers to choose better products: "We're talking about consumer information, but also about knock-on effects. Because when product components, energy performance, or the Nutri-Score are gradually disclosed, what we've observed is that the market starts to regulate itself: more and more of the best-performing products remain available, while the others tend to disappear"[5] Independent audits must confirm compliance, and sanctions should apply for misleading claims.

Some existing labels already point the way forward. For example, the Global Organic Textile Standard (GOTS) prohibits nanoparticles in certified textiles, offering higher protection than current EU law. Extending similar principles to menstrual products would fill a major regulatory gap. Nevertheless, most of these schemes remain voluntary—a limitation that underlines the need for mandatory EU-wide standards.

5 - The original quote was in French : "On parle d'information des consommateurs, mais aussi d'effets d'entraînement. Parce que quand les composants des produits, la performance énergétique, le nu tri score sont indiqués petit à petit, ce qu'on a constaté, c'est que le marché se régule et que de plus en plus, les produits les plus performants se retrouvent sur le marché et les autres ont tendance à disparaître".

Reinforcing Civil Society Involvement

The power of mobilisation

Civil society has historically been a driving force in menstrual product safety. The toxic shock syndrome scandals of the 1980s showed how public outrage could prompt rapid regulatory action: the U.S. FDA was forced to conduct new studies, and manufacturers had to disclose tampon absorbency levels. As Helen Lynn recalled, "Public pressure works, when people start asking questions, authorities move." Marianthi-Anna Kioumourtzoglou expressed similar views on the importance of public mobilisation: "it's important for us [voters] in this case, to push our governments for more funding in this and to push manufacturers for safer products because we do have, as consumers, a power."

Today, civil society organisations play a similar role in raising awareness about PFAS, phthalates, and other toxic substances. NGOs have launched EU-wide petitions and campaigns linking menstrual equity to chemical safety. However, interviewees noted that feminist organisations are often underfunded and excluded from policy processes dominated by industrial lobbies. As Lynn stressed, "Feminist NGOs must integrate menstrual product toxicity into their advocacy—it's not only an environmental issue, it's a human rights issue."

Linking evidence to public action

While scientific data remain limited, there is already enough evidence to raise public concern. Independent tests have repeatedly detected metals, PFAS, and pesticide residues in menstrual products. These findings, combined with the high permeability of vaginal tissue and the long duration of use, justify applying the precautionary principle. Public communication should focus on informing without alarming, helping consumers make safer choices while demanding accountability from producers.

Civil society also acts as a bridge between science and politics, translating complex toxicological data into accessible narratives. Campaigns like "Affiche ta compo" in France or "Toxic-Free Periods" in the UK demonstrate how strategic communication can transform a niche issue into a mainstream policy concern. This analysis was reinforced by Esther Vogel, who stressed the importance of public opinion as "legally and publicly, as we know, there needs to be public opinion supporting it."[6]

Building a European coalition

The next step is institutionalising collaboration. Stakeholders across interviews called for the creation of a European platform on menstrual health safety, bringing together researchers, NGOs, regulators, and manufacturers. For example, Esther Vogel, emphasised the importance of bringing different stakeholders together, such as manufacturers: "Having manufacturers committed to improving product composition and working with them so that they can also say: as manufacturers, it is possible."[7]

Such a platform could coordinate funding, harmonise testing methodologies, and oversee transparency initiatives. It would ensure that civil society voices are included in standard-setting processes, avoiding the opacity observed in current procedures.

Actionable recommendations and guidelines for policies

The evidence presented throughout this report demonstrates that current EU regulation is fragmented and insufficient to protect menstruators from potential chemical, environmental, and socio-economic risks.

To move toward a coherent, rights-based and science-informed framework, the European Union and its Member States should adopt a comprehensive action plan structured around five main pillars: (1) Health and Safety; (2) Transparency and Consumer Rights; (3) Environment and Circularity; (4) Research, Innovation, and Knowledge; and (5) Governance, Participation, and Human Rights.

The starting point of this study was a simple question: *better regulating menstrual products—why does it matter?* We hope the preceding analysis has demonstrated the importance and urgency of this issue. Building on these findings, the following recommendations outline initial steps toward meaningful solutions, informed by insights from a wide range of stakeholders and existing research.

1. Health and safety

→ Adopt a dedicated EU regulation for menstrual products.
Establish a specific legal category recognising menstrual products as intimate health items requiring chemical-safety and toxicological standards comparable to cosmetics and medical devices.

→ Apply the precautionary principle systematically.
In the absence of complete scientific certainty, regulators should take preventive measures to restrict substances with suspected harmful effects, especially those with endocrine-disrupting or carcinogenic potential.

→ Prohibit hazardous additives.
Ban intentionally added PFAS, phthalates, parabens, formaldehyde, and synthetic fragrances in all menstrual products marketed in the EU.

6 - The original quote was in French : "Juridiquement et publiquement, on le sait, il faut qu'il y ait l'opinion publique qui suive"
7 - The original quote was in French : "Avoir des fabricants engagés dans des démarches pour améliorer la composition des produits et travailler avec eux pour qu'ils puissent aussi dire : en tant que fabricants, c'est possible".

→ Set binding MRLs.
Introduce EU-wide limits for contaminants such as pesticides, dioxins, VOCs, and heavy metals, based on cumulative and mixture toxicity models.

→ Mandatory pre-market toxicological testing.
Require all menstrual products to undergo independent, third-party testing before being placed on the market. These tests should include vaginal and dermal exposure pathways.

→ Include menstrual products in the revision of REACH.
Ensure the upcoming reform explicitly addresses menstrual products as a use-category deserving higher scrutiny and targeted restrictions.

→ Create a list of substances of concern for menstrual products.
Under REACH and the Chemicals Strategy for Sustainability, establish a specific watch-list of high-risk chemicals frequently detected in menstrual products, with a timeline for restriction or phase-out.

→ Develop risk-assessment methodologies adapted to intimate exposure.
The European Chemicals Agency (ECHA) and Joint Research Centre (JRC) should create standardised methods reflecting mucosal absorption rates and cumulative exposures.

2. Transparency and consumer rights

→ Mandatory ingredient disclosure.
Require manufacturers to list all ingredients and contaminants directly on product packaging and online, using standardised terminology across the EU.

→ Establish a unified EU labelling system.
Develop a clear, visible label providing chemical-safety information (e.g., "PFAS-free," "non-toxic," "tested for heavy metals", and/or a "healthy score" comparable to the "nutriscore"), based on EU standards, and comparable across Member States.

→ Create a public EU database on menstrual product composition.
Managed by ECHA or the JRC, this database would compile verified testing results, facilitating transparency for researchers, authorities, and consumers.

→ Ensure traceability and accountability in supply chains.
Require manufacturers to disclose supplier information for raw materials and additives, ensuring traceability of chemical origins.

→ Harmonise safety communication.
Member States should align risk communication tools, ensuring accessible information for all consumers, including those with low literacy or disabilities.

→ Combat misleading marketing claims.
Strengthen EU consumer-protection enforcement against "greenwashing" or "toxic-free" labels that are not independently verified.

3. Environment and circularity

→ Integrate menstrual products into the EU Circular Economy framework.
Require life-cycle assessments (LCAs) including carbon footprint, water use, waste management, and chemical release indicators.

→ Apply Extended Producer Responsibility (EPR).
Oblige producers to contribute financially to the collection, recycling, or safe disposal of menstrual waste, reducing the burden on municipalities.

→ Develop eco-design and substitution incentives.
Provide EU funding and regulatory advantages for innovations in non-toxic, biodegradable, or compostable materials and for reusable products with verified safety.

→ Regulate reusable menstrual products.
Create a specific regulatory category covering reusable pads, cups, and underwear to ensure they meet the same safety and chemical standards as disposables.

→ Integrate nanomaterials and microplastic concerns.
Extend the scope of nanomaterial regulation in textiles to include menstrual underwear, with monitoring and restrictions for persistent microplastics.

→ Strengthen eco-labelling criteria.
Update the EU Ecolabel for menstrual products to include binding bans on hazardous chemicals, residue thresholds, and transparent environmental metrics.

→ Promote zero-waste menstrual management strategies.
Support national programmes that encourage safe reusable products while ensuring accessibility and hygiene infrastructure (clean water, waste separation).

4. Research, innovation, and knowledge

→ Establish an EU research programme on menstrual product safety.
Under Horizon Europe or its successor, create a specific funding line for independent studies on chemical exposure, reproductive health, and environmental impact.

→ Fund the development of vaginal mucosa exposure models.
Support academic and clinical research to create validated in vitro models reflecting mucosal absorption, essential for accurate risk assessment.

→ Encourage interdisciplinary collaboration.
Create an EU Task Force on Menstrual Product Safety bringing together toxicologists, public-health experts, social scientists, manufacturers, and civil-society organisations.

→ Support longitudinal and epidemiological studies.
Fund large-scale research to investigate links between chemical exposure from menstrual products and health outcomes such as fertility, endometriosis, or autoimmune disorders.

→ Promote data sharing and open science.
Require that EU-funded studies deposit raw data and methodologies in open databases, ensuring replicability and transparency.

→ Develop training for regulators and health professionals.
Build capacity within Member States to interpret toxicological data, assess risk, and communicate findings to the public effectively.

5. Governance, Participation, and Human Rights

→ Recognise menstrual health as a fundamental human right.
Following WHO and UN guidance, the EU should integrate menstrual health into its Human Rights and Democracy Action Plan, ensuring safety, accessibility, and dignity.

→ Guarantee inclusive policy participation.
Ensure that civil-society organisations, feminist movements, and minorities who are disproportionately affected by menstrual poverty (including low-income, migrant, Roma, LGBTQIA+, and disabled people) are systematically involved in regulatory consultations.

→ Adopt an EU Menstrual Health and Safety Strategy.
As part of the upcoming Gender Equality Strategy 2030, the Commission should propose a cross-sectoral strategy aligning menstrual product safety with public-health, environmental, and gender-equality objectives.

04

Conclusion

This report began with a simple yet urgent interrogation: what would it take to make menstrual products truly safe, transparent, and sustainable in the European Union?

The answer lies not only in better chemistry or cleaner manufacturing, but also in rethinking how Europe protects health, the environment, and the rights of consumers, especially those whose needs have long been overlooked.

Despite their everyday use by half the population, menstrual products remain among the least regulated intimate goods in the EU. Over two decades of scientific evidence have revealed the presence of PFAS, phthalates, dioxins, heavy metals, and other hazardous residues in tampons, pads, and menstrual underwear. Yet, no EU-level regulation or testing standard guarantees their safety. Manufacturers are expected to ensure that their products are "safe," but without clear guidance, thresholds, or transparency requirements. This leaves consumers uninformed, unable to compare products, and exposed to risks they have no power to assess or avoid.

In short, menstrual safety today depends not on rights and regulation, but on trust, which is a fragile substitute for accountability.

Menstrual product safety is more than a technical issue: it reflects how the EU defines the right to health, environmental integrity, and consumer protection. As products that come into contact with highly absorbent mucosal tissue for decades of use, menstrual items must be treated with the same vigilance as medical or cosmetic goods. Their contamination by "forever chemicals" and industrial residues exemplifies how public health, gender equality, and environmental protection intersect. PFAS pollution, for instance, is not only a reproductive health hazard but also an ecological one, persisting in soil, water, and the human body for generations. The World Health Organization and the International Court of Justice have both affirmed that protecting people from chemical harm is a human rights obligation. Within the EU, this duty also extends to ensuring consumer rights to safety, information, and choice.
Transparency and access to information are the cornerstone of these rights. A consumer cannot exercise free choice without knowing what is in the products they use. The absence of ingredient disclosure and public data on contaminants in menstrual products is therefore not just a regulatory gap but a democratic one.

Restoring trust and responsibility requires giving consumers the right to know and the right to safe alternatives. Full ingredient labelling, independent testing, and a public EU database on product composition would empower individuals, strengthen accountability, and drive industry innovation.

Applying the precautionary principle must be the next step: when credible evidence of harm exists, uncertainty cannot justify inaction. The EU should adopt binding rules that ban hazardous additives, set maximum residue limits, and ensure that all menstrual products, whether disposable or reusable, meet common toxicological and environmental standards. Such measures would place menstrual safety within the broader ambition of the Green Deal and the Chemicals Strategy for Sustainability: a toxic-free environment that protects both people and the planet.
However, regulation alone will not suffice. Progress depends on independent research, citizen mobilisation, and transparent governance. EU-funded studies on exposure pathways, mixture toxicity, and chronic low-dose effects are urgently needed. Civil society has already demonstrated its power to drive change, through petitions, advocacy, and awareness campaigns, and should be formally included in policy processes. Their activism has reframed menstrual health as a public issue of equality and justice, not private hygiene.

Ultimately, menstrual product safety is a measure of Europe's maturity as a social, environmental, and democratic union. Protecting consumers from hidden risks in intimate products is not a niche demand, it is a test of whether the EU can align its core promises: health protection, gender equality, environmental stewardship, and consumer empowerment.

The path forward is clear: more transparency, more precaution, and more accountability.

By enshrining menstrual health within its broader human rights and consumer protection agenda, the European Union can close a historic regulatory gap and lead the world in defining what safe, equitable, and sustainable menstruation truly means. Ensuring that every person in Europe can trust the safety of the products they rely on each month is not just a policy goal but a statement of dignity, democracy, and rights in action.

05

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REGLES ELEMENTAIRES

Règles Élémentaires, founded in 2015, is the first French non-profit organisation dedicated to menstrual justice. Their mission is to ensure that everyone can experience their periods in dignified conditions and that menstruation no longer hinders their daily lives.

They have different ways of action. They collect and redistribute menstrual products throughout France, they have distributed 25 millions protections ever since they were created. They also provide training and awareness for a wide range of audiences, including schools, medico-social institutions, companies, and universities. Since their foundation, they have reached over 15,000 young people through dedicated menstrual education sessions.

They began their advocacy work on menstrual product composition three years ago, starting with the Affiche ta compo campaign, in coalition with La Fondation des Femmes and George Sand, as well as a petition that gathered 20,000 signatures. This initiative contributed to the adoption of a transparency decree in France, one of the few countries in Europe with such legislation. The decree requires manufacturers to list all ingredients on menstrual product packaging.
Since 2024, Règles Élémentaires has expanded its advocacy strategy to the European level, notably by establishing connections with European institutions (the Commission and Members of the European Parliament) and by actively advocating for menstrual issues to be recognised in EU-level policy. They contributed to a report commissioned by the Greens/EFA on menstrual poverty. They also launched the Menstrual Matters campaign to raise visibility around period poverty, and they founded a network of organisations under the same name to strengthen collaboration and amplify the collective impact of NGOs working in this field.

REGLES
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