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Public comments on the California Department of Toxic Substances Control's (DTSC) Proposed Priority Product: Treatments Containing Perfluoroalkyl or Polyfluoroalkyl Substances for Use on Converted Textiles or Leathers

Submitted via the CalSAFER portal at:
https://calsafer.dtsc.ca.gov/cms/commentpackage/?rid=12759

We are writing from Silent Spring Institute to submit comments to the California Department of Toxic Substances Control (DTSC) regarding the proposed classification of treatments containing perfluoroalkyl or polyfluoroalkyl substances for use on converted textiles or leathers as a Priority Product under the Safer Consumer Products (SCP) regulations. We appreciate this opportunity to share scientific information on PFAS exposures and health effects from our own research and other published scientific studies.

Silent Spring Institute is a non-profit research organization that studies the links between environmental chemicals and disease, with a focus on breast cancer. Chemicals in the PFAS family are of concern for many health endpoints, including breast cancer. Silent Spring previously published peer-reviewed studies on PFAS exposures associated with drinking water,[1,2] food packaging,[3] diet, and consumer products.[4] Silent Spring currently has four federally funded research studies on PFAS, including 1) Massachusetts PFAS and Your Health Study, part of the larger CDC/ATSDR Multi-Site Study on health effects of PFAS exposures from drinking water, 2) PFAS-REACH, which is assessing the relationship between PFAS and pediatric immunotoxicity, 3) STEEP, led by the University of Rhode Island, which is investigating environmental transport, exposure, and health effects of PFAS, and 4) a new study funded by the National Science Foundation to investigate policy responses to PFAS at multiple levels of governance.

We support DTSC's conclusion that exposures from textiles and leathers treated with PFAS presents significant health risks to the numerous consumers of these products. Furthermore, we support DTSC's decision to group PFAS as a class given shared hazard traits and the risk of regrettable substitutions in consumer products. Our research has shown the presence of many different PFAS in textile products labelled water- or stain-resistant, even those labelled "non-toxic" or "green,"[5] emphasizing the need for regulatory bodies like DTSC to protect consumers from exposure risks, especially since consumers cannot reliably avoid PFAS by simply selecting green certified products or using other information on product labels. The following comments describe in greater detail the scientific rationale for listing PFAS treated textiles and leathers as Priority Products under SCP regulations.

PFAS-treated textile products can be significant sources of exposure

Numerous studies have shown that textiles (e.g., outdoor clothing, carpets, and furniture) treated with PFAS release PFAS into the indoor air,[6,7] as well as into laundry water (up to 10 μg/L) when washed.[8] Our research found that having stain-resistant carpet or furniture, which often are treated with PFAS, is associated with higher blood serum levels of some PFAS in a cohort of women.[9] Our study specifically showed higher blood serum levels (18.7%) of PFNA for both African American and non-Hispanic white women who reported having stain-resistant carpet or furniture in their homes, and higher blood serum levels (39.6%) of PFDA in non-Hispanic white women with stain-resistant carpet or furniture.[8] This is confirmed by other studies, which found that household carpet usage could be correlated with increased serum PFAS levels.[10] Furthermore, the treatment of fabrics with PFAS presents a threat to textile workers during manufacturing, with inhalation exposure as much as five times that of the general population.[11] Due to the exposure risk of PFAS-treated textiles, classifying treatments containing PFAS for use on converted textiles or leathers as Priority Products under SCP regulations is critical to protecting public health.

PFAS exposures have been linked to a range of deleterious health effects

PFAS chemicals are associated with a wide range of adverse health outcomes, including cancer,[12] thyroid disfunction,[13] immune suppression,[14] low birth weight,[15] decreased fertility,[16] and more. Of particular concern to us at Silent Spring Institute are potential effects of PFAS exposures on women's health. Several well-powered epidemiological studies have documented associations between serum PFAS and reduced duration of breastfeeding.[17,18,19] Multiple studies in rodents have also demonstrated that prenatal exposure to PFAS (specifically PFOA) delays mammary gland development.[20,21,22,23] Alarmingly, the PFOA-induced delays in mammary gland development and lactation-related defects were evident across three generations of mice,[21] underscoring the importance of addressing this public health risk to prevent additive or synergistic effects of continued PFAS exposure across generations of humans. Moreover, our research has demonstrated how disruption of mammary gland development, like that posed by PFAS exposure, can increase the risk of developing breast cancer later in life,[24] which is confirmed by several studies demonstrating a link between PFAS exposure and increased breast cancer risk.[25,26] Regulating treatments containing PFAS for use on textiles as a Priority Product is necessary to reduce consumer exposure to PFAS and protect against the associated wide range of deleterious health effects.

Numerous scientists support grouping PFAS as a class given the shared hazard traits

The U.S. EPA has identified over 9,000 compounds classified as PFAS,[27] and many have been associated with industrial uses and consumer products.[28] Given the size of this chemical family, conducting human health risk assessments for each individual PFAS compound is not possible, which highlights the need for a class-based approach. Despite the high diversity of the class, PFAS are all alike in that they contain perfluoroalkyl moieties that are extremely resistant to environmental and metabolic degradation, and this high persistence means that their continual release will result in accumulating environmental concentrations and increasing probabilities of the occurrence of irreversible harms.[29] Due to the mobile, persistent, bioaccumulative, and toxic nature of these chemicals, a class-based approach is required.

The American Public Health Association[30] and a number of expert scientists including Dr. Linda Birnbaum, former head of the National Institute for Environmental Health Sciences, have recommended approaching PFAS as a class based on their shared chemical properties and have urged reducing overall use of PFAS.[31,32,33,34,35] Past examples (such as flame retardants[36] and CFCs) have shown that a one-chemical-at-a-time approach has not been effective at protecting public health and the global environment. We commend DTSC for treating PFAS as a class in this proposed Priority Product classification, and for generally expressing commitment to this regulatory approach.[37, 38]

The OECD has developed a definition for PFAS as a class[39]—which state legislation is already aligned with—and in 2019 the European Union recommended an action plan to eliminate all non-essential uses of PFAS,[40] indicating other regulatory agencies are also moving in this direction.

In summary, the available science supports classifying treatments containing PFAS for use on converted textiles or leathers as Priority Products under the Safer Consumer Products (SCP) regulations, and DTSC's action to do so is a critical step to protect the health of consumers and workers.

Thank you for the opportunity to provide comments.

Best regards,

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