*** National Center for Health Research * Consumer Federation of America * Public Interest Research Group ***

November 20, 2023
Consumer Product Safety Commission
4330 East West Highway
Bethesda, MD 20814

Joint Comments to the
Consumer Product Safety Commission on the
Request for Information: Per- and Polyfluoroalkyl Substances in Consumer Products
Docket No. CPSC-2023-0033-0008

Thank you to the Consumer Product Safety Commission for the opportunity to express our views regarding priorities for evaluating potential harm from PFAS in consumer products.

PFAS is of great concern because a number of studies link PFAS to a variety of adverse human health outcomes, including but not limited to increased risk of several types of cancer, low infant birth weight, liver damage, increased risk of pregnancy complications such as pre-eclampsia, and other serious health problems.[1] The CDC Agency for Toxic Substances reports that PFAS has been found in the blood of most Americans for years; as some types of PFAS have been banned, other types have become more prevalent.[2] Recently, the Department of Veterans Affairs awarded 100% disability to a veteran who developed colon cancer after being exposed to high levels of PFAS in contaminated water in his military base.[3]

I. Artificial Turf, Playground Surfaces, and Indoor Floor Tiles

Although PFAS exposure is ubiquitous, our comment highlights three products that expose millions of children and young adults to PFAS: **artificial turf, recycled tire materials used in outdoor rubber playground surfaces, and indoor floor tiles**. These materials cover many

[1] Agency for Toxic Substance and Disease Registry (ATSDR). (2022, November 1). *What are the health effects of PFAS*? https://www.atsdr.cdc.gov/pfas/health-effects/index.html.
[2] ASTDR. (2023, June 29). *PFAS in the US Population.* https://www.atsdr.cdc.gov/pfas/health-effects/us-population.html.
[3] Elder, P. (2023, November 9). "Veterans Administration cites PFAS contamination and awards 100% disability to Fort Ord Veteran suffering from Colon Cancer." Available here: https://www.militarypoisons.org/latest-news/veterans-administration-awards-100-disability-to-fort-ord-veteran-suffering-from-colon-cancer#:~:text=Veterans%20Administration%20cites%20PFAS%20contamination,from%20Colon%20Cancer%20%E2%80%94%20Military%20Poisons.

thousands of acres of land in parks, schools, professional sports stadiums, practice fields around the country, and indoor play areas. These materials are concerning because research by CPSC and others indicates that common childhood behaviors – playing barefoot or with exposed skin, eating without proper handwashing, and frequent hand-to-mouth contact - may increase exposure to surface chemicals.[4] In addition to direct exposure for children and adults playing on these surfaces, PFAS from artificial turf and playgrounds can get into ground water and streams, and from there into drinking water.

Unfortunately, as described in greater detail below, the manufacturers of artificial turf, pour in place (PIP) rubber and other rubber playground surfaces, or recycled rubber indoor tiles frequently do not disclose the chemical contents of these products.

In the last few years, scientists have learned more about PFAS in artificial turf, rubber surfaces installed on playgrounds for children, and other products children are exposed to, sometimes daily for years. Tire crumbs are used for infill for artificial turf fields, PIP rubber playground surfaces, and recycled rubber tiles, despite well-known risks. The tire crumb infill in artificial turf fields and below the surface of the PIP top layer of rubber playground surfaces become exposed over time. Young children like to play with it and sometimes put that in their mouths. PFAS is used in the manufacture of rubber[5] so it is not surprising that tires and tire crumb are known to contain PFAS.

The plastic grass that comprises artificial turf fields has also been found to have PFAS and other endocrine disrupting chemicals. The Ecology Center of Ann Arbor, Michigan tested samples of artificial grass blades and detected one PFAS chemical in the backing of the new turf sample, 6:2-fluorotelomer sulfonic acid (6:2 FTSA).[6] This chemical has a 6-carbon chain and is considered a short-chain PFAS because of the way in which it breaks down. In many cases, short-chain PFAS have been adopted as substitutes for longer-chain PFAS, which are assumed to be less safe. PFAS may vary with different manufacturers, but the Michigan researchers reported that of the samples of artificial grass blades tested, those testing positive for fluorine were made by two different companies.

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[4] "2019 Survey of American Household: Child Interaction and Potential exposure to Playground Surfacing Materials," September 2019. Available here: https://www.cpsc.gov/s3fs-public/Final-Report_Playground-Surfacing-Survey_with_Appendices_and_Cleared_Staff_Statement_Cover_Page.pdf?sqzSSGJkODbKEnHhYnkJrP8eDpKRWKBS.

[5] J. Glüge, M. Scheringer, I. T. Cousins, J. C. DeWitt , G. Goldenman, D. Herzke, A. B. Lindstrom, R. Lohmann, C. A. Ng , X. Trier and Z. Wang, An overview of the uses of per- and polyfluoroalkyl substances (PFAS), *Environ. Sci.: Processes Impacts*, 2020, DOI: 10.1039/d0em00291g. *See* Figure 3, which demonstrates the large amount of PFAS used in the manufacturer of rubber.

[6] The Ecology Center. (2023, October 10). "Toxic 'Forever Chemicals' Infest Artificial Turf." https://www.ecocenter.org/toxic-forever-chemicals-infest-artificial-turf. *See also* Lerner, S. (2019, October 23). "Toxic PFAS Chemicals Found in Artificial Turf." *The Intercept*. https://theintercept.com/2019/10/08/pfas-chemicals-artificial-turf-soccer/?eType=EmailBlastContent&eId=2768993e-5aaf-4e2c-9f42-a62433c34155.

Challenges in Testing for PFAS

When interpreting results of artificial turf carpet samples, it is important to understand what test was conducted. For example, we agree with Toxics Use Reduction Institute (TURI) at the University of Massachusetts that to determine whether PFAS are likely to be present, a total fluorine test and/or a TOP assay may be helpful.[7] Another factor to consider is that in some cases, a test may be carried out only for long-chain chemicals that were used more frequently in the past, or that appear primarily as degradation products in the environment. Knowing the presence of these chemicals is important, but they are not the most likely chemicals to appear in a new product.

In addition, it is difficult to conclusively test for PFAS due to the thousands of individual chemicals in the class, as well as the potential risks of very low concentrations. In many cases, companies may test for a small group of PFAS, resulting in the company's claim that the product is free of PFAS. However, the absence of those few PFAS chemicals does not mean that the product is free of *all* PFAS chemicals.

There are also many examples of claims by companies that manufacture these products that their products are proven to be safe and/or tested negative for PFAS. For example, BrockFILL has been promoted as a safer infill than tire crumb for artificial turf, but BrockFILL and the Brock shock pad has been scientifically tested and found to contain PFAS. Similarly, FieldTurf wrote to city officials in Rye, New York on November 8, 2023 that they have tested for 30 specific PFAS chemicals "of concern" with "none to be found."[8] They admitted those were a small percentage of the thousands of PFAS chemicals in use and they used tests for PFAS in water, which are different from PFAS tests for solid materials. The lab also acknowledged that they were reporting results at the laboratory reporting limit (which might not be as accurate as needed).

II. Recommendation to CPSC

We welcome the CPCS's review and work on this important topic. We urge the CPSC to do the following:

- Test, study, and review PFAS in artificial turf fields, PIP and other rubber playground surfaces, and tiles made of recycled rubber.
- Share information with consumers about the risk of PFAS in artificial turf fields, PIP and other rubber playground surfaces, and tiles made of recycled rubber.
- Ensure CPSC policies complement state and federal policies. As the adverse human health consequences of PFAS become clearer, states across the country are leading the way and

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[7] Massachusetts Toxics Use Reduction Institute. (2020, February). *Per- and Poly-fluoroalkyl Substances (PFAS) in Artificial Turf Carpet*. https://www.turi.org/content/download/12963/201149/file/TURI+fact+sheet+-+PFAS+in+artificial+turf.pdf.

[8] *See* correspondence between Vision Sport Design and City of Rye, New York (2023, November 23), available here: https://www.ryeny.gov/home/showpublisheddocument/17068/638355685490200000.

enacting policies that protect consumers from PFAS. CPSC must support and consider this important work and ensure that its policies complement state and federal policies.

- Ensure that, in the quest to address PFAS, the CPSC avoids replacing PFAS with other harmful chemicals. In doing so, the CPSC should treat PFAS as a class of chemicals, as was previously done for organohalogen flame retardants.
- Develop guidance materials, like that the CPSC developed for organohalogen flame retardants.

III. Conclusion

There is a great need for research, and much remains unknown about the prevalence of specific PFAS chemicals in particular products or the risks of specific products. Consumer products are not routinely tested for PFAS, and even when they are tested, there is an incentive for companies to conduct limited tests focused on PFAS chemicals such as PFOA and PFOS that are no longer widely used because that enables companies to make misleading safety claims, rather than ensure that the products are PFAS-free. Given the thousands of artificial turf fields, PIP, other rubber playground surfaces, tire crumb, and recycled rubber tiles installed throughout the country and used in homes, daycare centers, and schools, we encourage CPSC to prioritize this important issue.

Respectfully submitted,

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