



February 26, 2020

Maryland General Assembly  
Environment and Transportation Committee, Room 251  
House Office Building  
Annapolis, MD 21401

Written Testimony in opposition of: House Bill No. 1032:

Submitted by:  
Dan Bond  
President & CEO  
Synthetic Turf Council  
2331 Rock Spring Road, Forest Hill, MD 21050

Dear Chair Barve, Vice Chair Stein and members of the Environment and Transportation Committee,

My name is Dan Bond and on behalf of the Synthetic Turf Council (STC), I am writing in opposition to House Bill No. 1032. The STC is headquartered in Forest Hill, MD and is the world's largest organization representing the synthetic turf industry. Founded in 2003, the STC promotes industry excellence through guidelines, certifications, and other learning platforms. Membership includes builders, landscape architects, engineers, testing labs, maintenance providers, manufacturers, suppliers, installation contractors, infill material suppliers and other specialty service companies. Additionally, my daughter goes to a Washington, DC metro area school where she enjoys playing on the school's synthetic turf field with recycled rubber infill.

Prohibiting tires to be recycled in synthetic turf athletic fields will have a negative impact on the Maryland environment and field owners. There are an estimated 275,000,000 cars on the road in the United States, which equates to 1.1 billion tires that need to be disposed of properly. Every year, over 30,000,000 tires are recycled for use in synthetic turf fields. Each synthetic turf football field diverts between 18,000 to 20,000 tires from being dumped illegally, dumped into landfills or incinerated as fuel.<sup>1</sup> End-of-life passenger tires and truck and bus radial tires are beneficially recycled into infill on synthetic turf athletic fields and overall are recovered at higher rates than aluminum cans, glass, cardboard and paper.

Field owners should have the right to choose what components go into their synthetic turf system. These systems are designed and built based on multiple factors, including sports being played, climate, and maintenance and funding available. Prohibiting recycled tires from being used denies the field owner from making the choice based on their needs.

In July 2019, the Environmental Protection Agency (EPA) released its crumb rubber characterization report, which summarized results on a range of metals and organic chemicals which the EPA found in

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<sup>1</sup> Entire Synthetic Turf Fields Now Being Recycled, Athletic Business, <https://www.athleticbusiness.com/Stadium-Arena/entire-synthetic-turf-fields-now-being-recycled.html>



their study of tire crumb rubber.<sup>2</sup> The report highlights what we already know about crumb rubber infill in synthetic turf fields: crumb rubber is made of the same components found in everyday consumer products, and hospital and classroom floors. Specifically, the “findings from this study support the premise that while many chemicals are present in the recycled tire crumb rubber, exposure may be limited based on what is released into air or biological fluids.” The EPA went so far as to say that “while there is concern about chemical exposures resulting from the use of recycled tire and other materials in synthetic fields, it is important to recognize that some of the chemicals are likely to be present in other types of fields, including natural grass fields.” Also, the EPA found that “the presence of a substance does not directly equate with human exposure. While there are many chemicals associated with recycled tire crumb rubber, [the EPA] laboratory experiments suggest that the amount of chemicals available for exposure through release into the air and simulated biological fluids is relatively low.” Furthermore, when the EPA tested for dozens of substances it found low and below-detection limits emissions, which is consistent with previous studies.

Also in July 2019, the National Toxicology Program (NTP) released four reports on potential human exposure to crumb rubber.<sup>3</sup> The reports examined the chemical and physical characterization of crumb rubber, and conducted *in vivo* and *in vitro* studies on various routes of exposure from crumb rubber. The NTP found there was no evidence of toxicity in mice from ingestion of crumb rubber. Analysis of the animals’ blood and urine showed that internal levels of crumb rubber chemicals were very low. No health problems were observed. Data from a combination of analyses demonstrate that volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals constitute a very small fraction of the crumb rubber lot. Bioaccessibility studies conducted *in vitro* to mimic various routes of exposure showed that only a few constituents present in crumb rubber are present in these extracts under the conditions used, regardless of the biofluid or the analytical method used.

The STC has compiled a list of credible, scientific-based, third-party reports and studies and have made them readily accessible to the public.<sup>4</sup> The list includes more than 110 technical studies and reports that have examined various health and human safety questions relating to the use of recycled rubber as an aftermarket product, including its use as infill in synthetic turf sports fields. The majority of the studies were conducted by independent academic, federal and state government organizations, and involved chemical engineers, toxicologists, epidemiologists, chemists, biologists and other medical professionals. They estimated whether toxins are present at any level of concern, whether the human body can access them, and if exposure over time increases risk. All have confirmed what the EPA and NTP recently found – there is very little to no risk for people playing on synthetic turf fields with recycled rubber infill.

Additionally, in late 2016 STC’s recycled rubber suppliers voluntarily agreed to ensure all synthetic turf and playground infills meet American Society for Testing and Materials (ASTM) F3188-16 toy standards

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<sup>2</sup> Summary of EPA and NTP Studies on Crumb Rubber, [https://cdn.ymaws.com/www.syntheticurfCouncil.org/resource/resmgr/research/research\\_summary\\_of\\_recycled.pdf](https://cdn.ymaws.com/www.syntheticurfCouncil.org/resource/resmgr/research/research_summary_of_recycled.pdf)

<sup>3</sup> Ibid.

<sup>4</sup>List of third party peer reviewed studies on recycled rubber, <https://www.syntheticurfCouncil.org/page/recycled-rubber>



for heavy metals to further ensure safety for youth athletes. This was in addition to complying with EN71.3, the European Union's Toy Safety Directive. STC's members are committed to delivering products where the levels of extractable metals—present at low levels within many everyday products—are within ranges deemed to be safe in children's toys.

Thank you for your consideration.

A handwritten signature in black ink that reads "Dan Bond". The signature is written in a cursive, flowing style.

Dan Bond, CAE  
President & CEO  
Synthetic Turf Council