



UNITED STATES  
CONSUMER PRODUCT SAFETY COMMISSION  
4330 EAST WEST HIGHWAY  
BETHESDA, MD 20814

CHAIRMAN ELLIOT F. KAYE

December 18, 2015

The Honorable Bill Nelson  
United States Senate  
425 Hart Senate Office Building  
Washington, DC 20510

The Honorable Richard Blumenthal  
United States Senate  
425 Hart Senate Office Building  
Washington, DC 20510

Dear Ranking Members Nelson and Blumenthal:

Thank you for your November 4, 2015 letter regarding the safety of fields and playgrounds across the country made or infilled with crumb rubber from scrap tires. As Chairman of the U.S. Consumer Product Safety Commission (CPSC), and more importantly, as a father of two young boys, I certainly share your concerns. Consumers, and in particular parents, deserve to know whether or not these fields and playgrounds are safe to use.

You ask several questions in your letter about the technical assistance that CPSC plans to provide to California's Office of Environmental Health Hazard Assessment's comprehensive review of crumb rubber. The answers to each of those questions are below:

1. How will the CPSC ensure that the California study also assesses health risks associated with crumb rubber used on playgrounds?

Crumb rubber is used in the manufacture of mats or padding that may be used in playground areas such as unitary surfacing. After speaking with officials from California who are involved in the study, it is CPSC staff's understanding that the California study plan includes the evaluation of chemicals released from indoor and outdoor playground mats. Surface wipe samples and air samples taken from one foot above the mat surface will be used to assess potential skin and respiratory exposures to children. To assess the ingestion route of exposure, California's analysis of extractions from new uninstalled crumb rubber could provide adequate surrogate data for the crumb rubber playground mats. Those extractions include artificial biofluids (lung, sweat, saliva, gastric juice, and intestinal juice). As such, it is expected that the California study will address the health risks of certain crumb rubber used on playgrounds. CPSC staff will continue to monitor the study and recommend adaptations and augmentations if/as necessary.

2. Does CPSC staff believe that crumb rubber or synthetic turf products marketed primarily towards primary schools should comply with the lead limits applicable to children's products under section 101 of the Consumer Product Safety Improvement Act of 2008?

CPSC staff is not currently aware of any manufacturers that market their crumb rubber and synthetic turf products primarily toward primary schools. Even so, the current voluntary standard, ASTM F2765-14 Standard Specification for Total Lead Content in Synthetic Turf Fibers, requires that the artificial turf fibers comply with the 100ppm lead limit for children's products. Considering how harmful lead is to children, if further study demonstrates children are being exposed to lead from these products, especially over 100ppm, I would direct staff to consider all reasonable options to address that exposure.

3. How will the CPSC ensure that risks to the most vulnerable populations, including toddlers and athletes who play frequently and intensely, are assessed in this study?

Based on CPSC staff's review of the California study approach, the California study will examine the manner in which sensitive populations, such as children, may be more vulnerable to exposures than others, including how exposures may vary by age group. The study plans to assess the frequency and manner in which children interact with the different turf fields and playground mats. CPSC staff will also continue to monitor the study and recommend adaptations and augmentations if/as necessary.

4. Since the makeup of crumb rubber varies widely from one batch to another, and since tire ingredients can be proprietary, how can the CPSC ensure that this study examines truly representative samples?

CPSC staff acknowledges that the composition of tires varies by manufacturer and over time. A single soccer- or football-sized field typically contains crumb rubber from 20,000 to 40,000 scrap tires of various origins. Therefore samples collected from a single field would represent a mixture of scrap tires from thousands of sources. As California intends to collect samples from multiple fields, old and newly installed, staff expects that an extensive variety of tire compositions will be studied.

5. How will the CPSC ensure that all potential exposure pathways (dermal, oral and inhalation) are being evaluated?

Based on CPSC staff's review of the California study approach, the study is sampling for inhalation, dermal, and oral exposure routes. Air sampling above fields and playground mats will be used to assess for chemicals and particles that can be inhaled. Extraction with artificial lung fluid will assess chemical release from particles that are inhaled into the lungs. Wipe sampling of turf, playground mats and athletic equipment (e.g., gloves, balls) will aid in the assessment of dermal exposure as well as extraction, using artificial sweat, of chemicals from crumb rubber and synthetic grass blades. Extraction of crumb rubber in saliva, gastric juice, and intestinal juice will reveal compounds that may be released after ingestion of particles.

6. What steps will be made to guarantee that conclusions from the California study can be generalized for any scrap tire crumb rubber products and playing conditions nationwide?

The CPSC staff acknowledges that outdoor fields within the state of California will not be representative of all synthetic turf fields across the country. However, since California is the third largest state in the U.S. and covers 770-miles of North-South dimension, CPSC staff notes that a range of climatic conditions for outdoor fields are possible. In addition, the California study will assess chemical releases from fields of various ages, activity patterns, and weather conditions (e.g., summer peak heat), as well as varying degrees of maintenance (e.g., poorly versus well maintained fields). CPSC staff will also continue to monitor the study and recommend adaptations and augmentations if/as necessary.

Regarding your reference to a portion of the CPSC's Public Playground Safety Handbook, I appreciate that you both brought that particular point of potential confusion to our attention. At my direction, CPSC technical staff has reviewed the handbook and identified places where they intend to clarify the Handbook language so it is clear that the descriptions of rubber surfacing relate only to the surface softness requirements in the ASTM standard, and that we are not unintentionally conveying any assurances regarding potential chemical exposures. When the technical clarifications are complete, we will forward them to your offices and post them on our website.

While I am pleased CPSC staff will be providing technical assistance to California, I believe the federal government has a far larger role to play to provide parents with the answers they deserve. This public health matter requires the kind of close coordination between federal agencies, as well as Congress, that from my perspective has been lacking thus far. I also believe this coordination is preferable to each agency responding to separate Congressional committees by undertaking individual and different investigations. There has to be a more efficient, timely and effective approach.

Since I have been in this position, I have made it a point to engage with the leadership at a number of our sister agencies with jurisdiction in the area of chemical exposures to begin to enhance significantly federal coordination. And this engagement is not just on crumb rubber. There are a stunning number of chemicals of concern that need far more attention than they are currently receiving because of unnecessary limitations. In the meantime, countless children continue to be exposed to potentially harmful chemicals and parents continue to be frustrated and concerned.

Even with improved agency coordination, Congress has a crucial role to play in the government finding answers to chemical exposures to children, both through much-needed appropriations (at least for CPSC), as well as potentially through granting additional legal authorities. On funding specifically, while we can and will continue to provide technical assistance, CPSC is not in a position to contribute significant resources to any federal effort

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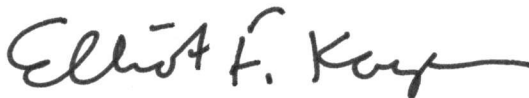
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without a commensurate increase in appropriations. While that might not be what Congress wishes to hear in this budget environment, it would be disingenuous of me to pretend otherwise.

With Congress and the relevant agencies working together, I believe the U.S. Government can augment any work undertaken by California and move toward providing much-needed answers. I am hopeful we will see such a coordinated effort move forward in the near future.

Thank you again for your letter and for your continued support of the CPSC and its mission to safeguard consumers. Should you or your staff have any questions, please do not hesitate to contact me, or Julia Richardson, Director of the Office of Legislative Affairs, by telephone at: (301) 504-7853, or by e-mail at: [JRichardson@cpsc.gov](mailto:JRichardson@cpsc.gov).

Sincerely,

A handwritten signature in black ink that reads "Elliot F. Kaye". The signature is written in a cursive style with a long horizontal flourish at the end.

Elliot F. Kaye