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## Federal Research on Recycled Tire Crumb Used on Playing Fields



### Background

Concerns have been raised by the public about the safety of recycled rubber tire crumb used in synthetic turf fields and playgrounds in the United States. We know people are concerned and players and their families want answers. Limited studies have not shown an elevated health risk from playing on fields with tire crumb, but the existing studies do not comprehensively evaluate the concerns about health risks from exposure to tire crumb. We are committed to supporting more comprehensive efforts to assess risks from tire crumb.

That's why on February 12, 2016, the U.S. Environmental Protection Agency (EPA), the Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry (ATSDR), and the Consumer Product Safety Commission (CPSC) launched a multi-agency **Federal Research Action Plan on Recycled Tire Crumb Used on Playing Fields and Playgrounds** to study key environmental and human health questions.

### Federal Research

This coordinated *Federal Research Action Plan on Recycled Tire Crumb Used on Playing Fields and Playgrounds* includes outreach to key stakeholders, such as athletes and parents, and seeks to:

- Fill important data and knowledge gaps.
- Characterize constituents of recycled tire crumb.

- Identify ways in which people may be exposed to tire crumb based on their activities on the fields.

The study has four parts:

- Literature Review/Gap Analysis (EPA and CDC/ATSDR)
- Tire Crumb Characterization (EPA and CDC/ATSDR)
- Exposure Characterization Study (EPA and CDC/ATSDR)
- Playground Study (Consumer Product Safety Commission)

## Status

For the tire crumb characterization part of the study, tire crumb samples were gathered from tire crumb manufacturing/recycling plants and from indoor and

outdoor fields across the country. Samples were gathered from nine tire crumb manufacturing/recycling plants and 40 fields. Researchers are currently evaluating the samples to characterize the chemical make-up of tire crumbs.

On August 2, 2017, the Office of Management and Budget (OMB) approved the Information Collection Request for the continuation of the Tire Crumb Exposure Characterization Study. With the OMB approval, the exposure characterization is now underway. EPA and CDC/ATSDR are currently visiting a small number of fields to collect exposure information to better characterize people's exposure to tire crumbs. Activity information from field users who elect to participate in the study is being gathered.

On December 30, 2016, the agencies released a status report describing the progress of the research to date. The status report includes the final peer-reviewed Literature Review/Gaps Analysis report and describes the progress to date on other research activities that are part of the effort including: Characterization of the chemicals found in tire crumb; Characterization of the exposure scenarios for those who use turf fields containing tire crumb; Study to better understand how children use playgrounds containing tire crumb and; Outreach to key stakeholders. The status report does not include research findings.

On February 10, 2017, a 60-day Federal Register Notice for the exposure characterization portion of the study as outlined in the Federal Research Action Plan was posted for public comment. An additional requirement of a 30-day Federal Register Notice, along with the Information Collection Request package was published on June 12, 2017. Those can be viewed from the sidebar menu.

While this effort won't provide all the answers about whether synthetic turf fields are safe, it represents the first time that such a large study is being conducted across the U.S. The study will provide a better understanding of potential exposures that athletes and others may experience and will help answer some of the key questions that have been raised. Depending upon the findings, available resources and other considerations, additional research beyond the first year may be conducted.

## Timeline

A peer-reviewed report summarizing study results will be published as soon as possible after the exposure characterization part of the study concludes.

## Existing Research and Information

Other federal, state, and local government agencies have conducted limited studies on artificial turf fields. For example, from 2009-2011, New York City and the states of New York, Connecticut and New Jersey conducted studies on tire crumb infill and synthetic turf. Also, in 2008 and 2009 the Consumer Product Safety Commission and the Agency for Toxic Substances and Disease Registry evaluated synthetic turf “grass blades” in response to concerns about lead exposure. Their evaluations estimated that any potential releases of toxic chemicals from the grass blades, such as lead, would be below levels of concern. In 2008, EPA conducted a limited Scoping-Level Field Monitoring Study of Synthetic Turf Fields and Playgrounds. The purpose of the limited study was to test a method for measuring possible emissions from using synthetic turf on playgrounds and ball fields, not to determine the potential health risks of recycled tire crumb in playgrounds or in synthetic turf athletic fields.

### Public and Stakeholder Engagement

- [2017 Federal Register Notice: Public Comment and Federal Responses](#)
- [30-day Federal Register Notice: Comment on Information Collection Request for Characterization of Exposure Potential during Activities Conducted on Synthetic Turf with Crumb Rubber Infill - Closed on July 12, 2017](#)
- [60-day Federal Register Notice: Comment on proposed and/or continuing sample collections - Closed April 11, 2017](#)
- [2016 Federal Register Notice: Public Comment and Federal Responses](#)
- [April 2016 Webinar Recording: Overview of the Federal Research Action Plan](#)

### Study Documents

- [December 2016 Status Report: Federal Research Action Plan on Recycled Tire Crumb](#)
- [Research Protocol and Study Design](#)
- [Federal Research Action Plan on Recycled Tire Crumb Used on Playing Fields and Playgrounds](#)
- [2008 EPA Limited Scoping-Level Field Monitoring Study of Synthetic Turf Fields and Playgrounds](#)

### Related Links

- [Tire Crumb Questions and Answers](#)
- [Government Organization Websites Related to the Use of Tire Crumb on Fields and Playgrounds](#)

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