

# Federal Research on Recycled Tire Crumb Used on Playing Fields

## Background

### Related Links

- [Federal Research Action Plan on Recycled Tire Crumbs Used on Playing Fields and Playgrounds](#)
- [Research Protocol and Study Design](#)
- [Public Comment and Federal Responses to Public Comment](#)
- [Tire Crumb Questions and Answers](#)
- [Webinar Recording: Overview of the Federal Research Action Plan](#)
- [Tire Crumb and Synthetic Turf Field Literature and Report List \(November 2015\)](#)
- [2008 EPA Limited Scoping-Level Field Monitoring Study of Synthetic Turf Fields and Playgrounds](#)

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Concerns have been raised by the public about the safety of recycled tire crumb used in playing fields and playgrounds in the United States. 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.

## Federal Research

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 U.S. Consumer Product Safety Commission (CPSC) launched a multi-agency action plan to study key environmental human health questions.

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 Federal Research Action Plan includes numerous studies. One of the main studies is gathering tire crumb samples from tire crumb manufacturing plants and from fields across the country. Researchers are evaluating the samples to characterize the chemical make-up of tire crumbs. An additional study will gather activity data from people who regularly perform activities on turf fields.

While additional research questions may require evaluation beyond this year, the information will help answer some of the key questions that have been raised. By late 2016, the agencies will

release a draft status report that describes the findings and conclusions of the research through that point in time. The report will also outline any additional research needs and next steps.

## Status

The Synthetic Turf Fields with Tire Crumb Rubber Infill Research Protocol document has been extensively reviewed, including a peer-review and an Institutional Review Board review, and the document is now final. Data collection components of the Federal Research on Recycled Tire Crumbs went through a public comment period and an [Information Collection Request](#) review conducted by the Office of Management and Budget. Peer-review and public comments are publicly available on the [OMB's website](#).

Now that the study protocol document is approved, researchers are collecting tire crumb samples from up to 40 field locations and up to nine tire crumb manufacturing plants located across the country. These locations include both outdoor and indoor fields. To protect the privacy, the specific locations of the fields being sampled cannot be released.

## 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.

EPA has developed a [Tire Crumb and Synthetic Turf Field Literature and Report List \(Nov. 2015\)](#). It is an extensive, although not exhaustive, survey of the literature from the past 12 years.

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