

Federal Government Study on the Use of Recycled Tire Crumbs in Synthetic Turf Fields

Background

Concerns have been raised by the public about the safety of recycled tire crumb rubber used in synthetic turf fields and playgrounds in the United States. In response, the 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 Federal Research Action Plan to study key environmental human health questions associated with using recycled tire crumb rubber on synthetic turf fields.

Studies

EPA and ATSDR are conducting two activities that are part of the Federal Research Action Plan:

1. The tire crumb rubber characterization activity to gather information about synthetic turf field facilities and operations, collect recycled tire crumb rubber infill samples from recycling plants and fields, and analyze the tire crumb samples.
2. The exposure characterization activity to gather data from synthetic turf field users to understand how they use the synthetic turf fields, with a subset of these field users providing samples for analysis, including air, blood, urine, and skin wipe samples.

EPA and ATSDR need tire recycling plants to participate in the first activity. Your facility was selected to participate in this activity because it was identified as a manufacturer of tire crumb rubber used as infill in synthetic turf fields.

Your role as a tire recycling facility

The purpose of the tire crumb rubber characterization activity is to see what chemicals are present in newly manufactured tire crumb rubber infill used in synthetic turf fields. We need tire recycling plants to provide permission to:

- Collect and test tire crumb samples manufactured at your plant. EPA and ATSDR will collect samples from three different production batches and/or storage containers. We will collect about four pounds of crumb rubber from each batch or container. This will take about 90 minutes to complete.
- Store the leftover samples to potentially test for other chemicals in the future.

Crumb Rubber Testing

Crumb rubber will be analyzed for the following chemicals and characteristics:

- Metals
- Volatile Organic Compounds
- Semi-Volatile Organic Compounds
- Particle size and composition

Attachment 4a. Tire Recycling Plant Fact Sheet

In addition to direct analysis, measurements of chemical emissions from crumb rubber and tests of chemical bioaccessibility from crumb rubber will be performed.

Study Results

EPA and ATSDR will evaluate measurement results.

- Only staff working on the study will be allowed to look at the paper and electronic records.
- Federal policy requires making the data collected publicly available. Facility and respondent names or other identifying information will not be publicly released.
- Results may be linked to other data gathered for the Research Action Plan.

Next Steps

EPA and ATSDR will release a draft status report at the end of 2016 that will summarize the agencies' progress in these activities. The report will also outline any additional research needs and next steps.

For questions or comment, please contact:

Monica Linnenbrink
Linnenbrink.Monica@epa.gov

More information is available – www.epa.gov/tirecrumb