

## Purpose of Tire Crumb & Synthetic Turf Scoping-level Field Monitoring

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EPA is planning to conduct limited scoping-level field monitoring of tire crumb playgrounds and synthetic turf athletic fields that use crumb rubber in-fill during the summer of 2008. This quick turn-around effort is expected to generate a limited set of monitoring data that will allow the Agency to begin addressing public concerns about possible toxic contaminant exposure to children from contact with tire crumb and synthetic turf surfaces. In reviewing the scientific literature, EPA has found little field monitoring data which are available to address possible childhood exposure.

The monitoring effort is being designed to:

1. Gain experience conducting multi-route field monitoring of recreational surfaces that contain tire crumb; and
2. Begin generating field monitoring data which will be used by EPA to help the Agency determine whether there is sufficient potential for exposure and risk (based on modeling possible exposure associated with reasonable worst case scenarios) to merit a more extensive exposure monitoring study necessary to more fully define any potential risks.

Any future decision regarding the need for a significantly more comprehensive EPA monitoring study to much more fully examine the wide diversity of recreational surfaces that use tire crumb will also consider the results of efforts focused on examining possible lead contamination of synthetic turf fields that have been or will be conducted by CPSC, ATSDR, and several states including NJ, CT, and NY during 2008.

<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>• Consistent collection/analysis of selected species in key media that will provide limited assessment of the range of possible exposures</li> <li>• Identify if there are elevated environmental concentrations, and if so, what contaminants and the most important routes/pathways</li> <li>• Identify if there is a need for future research, and if so, help frame what research is needed, and the associated resources</li> <li>• Evaluated base protocol/methodologies for designing future research</li> </ul>	<ul style="list-style-type: none"> <li>• Variability of tire crumb sources and use by manufacturers</li> <li>• Very small number of fields and locations (up to 8) <ul style="list-style-type: none"> <li>– Not representative of all Regions, tire crumb sources, turf fields types, age, etc.</li> <li>– Number of tire crumb constituents</li> </ul> </li> <li>• Number of samples</li> <li>• Environmental sampling only, no personal monitoring</li> <li>• Limited protocol/method evaluation</li> <li>• Limited quality assurance activities <ul style="list-style-type: none"> <li>– Standard methods and best QA practices to be employed</li> <li>– Surface methods adapted from ASTM, but not validated</li> </ul> </li> </ul>