

US Study of Tyre Crumb Rubber Finds 'Low Level of Concern'

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The EPA study found low risk levels associated with products made from tyre crumb

The US Environmental Protection Agency (EPA) announced on December 10 the results of a study of the health risks from inhalation, ingestion, and dermal contact with synthetic turf and crumb rubber from playing field and playground surfaces constructed with recycled tyre material or tyre crumb. It concluded that "concentrations of components monitored in this study were below levels of concern."

"The limited data EPA collected during this study, which do not point to a concern, represent an important addition to the information gathered by various government agencies," said Peter Grevatt, director of EPA's Office of Children's Health Protection. "The study will help set the stage for a meeting this spring, where EPA will bring together officials from states and federal agencies to evaluate the existing body of science on this topic and determine what additional steps should be taken to ensure the safety of kids who play on these surfaces."

The limited study, conducted from August through to October 2008, found that the concentrations of materials that made up tyre crumb were below levels considered harmful. However, given the limited nature of the study (limited number of constituents monitored, sample sites, and samples taken at each site) and the wide diversity of tyre crumb material, the EPA comments it is not possible, without additional data, to extend the results beyond the four study sites to reach more comprehensive conclusions.

Particulate matter, metals and volatile organic compound concentrations were measured in the air samples and compared with areas away from the turf fields (background levels). The study found that levels found in air samples from the artificial turf were similar to

background levels. Additionally, no tyre-related fibres were observed in the air samples. Thirdly, the study found all air concentrations of particulate matter and lead to be "well below" levels of concern. Furthermore, more than 90 per cent of the lead in the tyre crumb material was tightly bound and unavailable for absorption by users of the turf fields. Zinc, a known additive in tyres, was found in tyre crumb samples, however the study results show the air and surface wipe monitoring levels of the substance to be below levels of concern.

Pittsburgh based Liberty Tire Recycling, who claims to collect and recycle almost one-third of the United States' tyre waste, has praised the EPA study's findings. "The EPA is the latest agency to come to the same conclusion: Crumb rubber used in artificial turf or as a playground surface poses no significant health or environmental risk," said Jeffrey Kendall, chairman and CEO of Liberty Tire Recycling. "At Liberty Tire Recycling, we have been very concerned by recent headlines suggesting the opposite is true. Parents, business owners, public policy makers and elected officials deserve to know the facts, and they now have the facts from the authority on these matters.

"We welcome the EPA's decision to review all new studies on this matter, studies that have been conducted since the EPA launched its review," continued Kendall. "In state after state and in study after study, researchers have confirmed that crumb rubber is safe."

Kendall pointed to two other recently completed independent studies:

A California EPA study from July 2009 found no significant health risk to people who breathe the air above synthetic turf that contains crumb rubber. The study looked at the chemicals found in the air above the turf and the chemicals found in the air upwind from the fields that were analysed. The conclusion: The chemicals were found in similar concentrations in both samples. A May 2009 study by the New York departments of Environmental Conservation and Health found that crumb rubber used in synthetic turf fields poses no significant environmental threat or health concerns.

"People have a right to be concerned about their health and the health and safety of their children," added Kendall. "The findings of these studies and the EPA study should ease any concerns that people might have about products that are made from recycled rubber tyres. They're safe."

In a press statement the EPA says it is aware that studies by other agencies were undertaken or completed its survey was in progress. The agency is planning a 2010 meeting with US federal and state agencies to review all new study data and determine next steps.