

EPA Alerts Schools to Potential PCB Exposure Concerns

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The Environmental Protection Agency (EPA) recently announced a new initiative in response to growing concerns about the presence of PCBs (polychlorinated biphenyls) in caulks used in construction. The PCBs were added to caulking formulations in the past because they improved the material's flexibility and allowed for expansion and contraction. These qualities lend themselves very well to building components like windows, doors, expansion joints and ventilation systems where PCB-laden caulks were extensively used. Unfortunately, such widespread presence of PCBs in a variety of different consumer products had their effects. Prolonged exposures to PCBs have been found to negatively affect immune, reproductive, nervous and endocrine systems. They are potentially cancer-causing if they build up in the body over time.

These potential health effects, in combination with grade schoolers' poor hygiene practices and the possibility of deteriorating building materials, led the EPA's cause for concern. Like exposures to lead-based paint and asbestos, ingestion of settled dusts and inhalation of airborne dusts from deteriorated caulking may pose some health concerns for school age children. Since the use of PCBs in formulations was banned in 1978, the concern specifically surrounds school buildings constructed between 1950 and 1978.

While the EPA is treating this as a serious issue, it also states there's no cause for undue alarm. There are several unresolved scientific questions that must be addressed about the magnitude of the problem. For example, the link between the concentrations of PCBs in caulk and PCBs in the air or dust is not well understood. The EPA continues to research sources and levels of PCBs in schools to evaluate different strategies to reduce exposures. The results of this research will be used to provide further guidance to schools as they develop and implement long-term solutions.

The EPA recommends several immediate, low-cost steps schools can take to minimize exposures:

- Keep children from touching caulk or surfaces near caulk
- Clean frequently to reduce dust
- Use wet cloths to clean surfaces
- Use vacuums with HEPA filters
- Wash children's hands with soap and water before eating
- Wash children's toys often
- Wash surfaces, windowsills, walls, and objects often in rooms known to have PCB-containing caulk
- Consider testing the air for PCBs or test the caulk if it is peeling or visibly deteriorating
- Follow safe work practices when renovating
- Improve ventilation by opening windows or adding exhaust fans

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Both material testing and air sampling may be conducted to provide a conclusive determination of PCB presence. The EPA recommends that deteriorating caulk be tested directly for the presence of PCBs. If sampling reveals the presence of PCBs, the caulking should be removed by qualified professionals using appropriate equipment during planned repairs and renovations. In the interim, make sure to limit exposure to PCB-containing caulk until it has been safely removed.

For more information, please contact your Keenan Loss Control Consultant or refer to EPA's Fact Sheet at <http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/caulk/caulkschoolkit.htm>