

# PCBs in Caulk in Older Buildings

(adapted from EPA fact sheets)

Caulk is a flexible material used to seal gaps to make windows, door frames, masonry and joints in buildings and other structures watertight or airtight. Caulk containing potentially harmful polychlorinated biphenyls (PCBs) was used in many buildings, including schools, from the 1950s through the 1970s. In general, schools and buildings built after 1978 do not contain PCBs in caulk.



EPA has calculated prudent public health levels that maintain PCB exposures below the “reference dose” – the amount of PCB exposure that EPA does not believe will cause harm.

## **EPA Public Health Levels of PCBs in School Indoor Air**

(in nanograms of PCBs per cubic meter of air sampled)

			<u>Elementary School</u>	<u>Middle School</u>	<u>High School</u>	<u>Adult</u>
up to 2 yrs. old	2 - 3 yrs. old	3 - 5 yrs. old	6 - 11 yrs. old	12 - 14 yrs. old	15 - 18 yrs. old	19+ yrs. old
70 ng/m <sup>3</sup>	70 ng/m <sup>3</sup>	100 ng/m <sup>3</sup>	300 ng/m <sup>3</sup>	450 ng/m <sup>3</sup>	600 ng/m <sup>3</sup>	450 ng/m <sup>3</sup>

*Steps to reduce potential exposure before PCBs are confirmed present in caulk and before contaminated caulk is removed:*

- Improve ventilation, including opening windows and using or installing fans where possible.
- Clean frequently to reduce dust and residue inside buildings.
- Use a wet or damp cloth or mop to clean surfaces.
- Use vacuums with high-efficiency particulate air (HEPA) filters.
- Do not sweep with dry brooms; minimize the use of dusters.
- Wash hands with soap and water frequently, especially after cleaning or maintenance around caulk, and always before eating or drinking.

If air tests are above EPA guidelines, schools should identify potential sources of PCBs in the building, including testing samples of caulk and looking for other

potential PCB sources ( fluorescent light ballasts, paints, adhesives, etc.).

If elevated air levels of PCBs are found, schools should also have the ventilation system evaluated to determine if it is contaminated with PCBs. Although the ventilation system is not likely to be an original source of PCB contamination, it may have become contaminated by PCB sources and may be contributing to elevated air levels. Contaminated ventilation systems should be carefully cleaned. Ideally, such cleaning should be scheduled at the same time as the removal of any sources of PCBs that are found. This will help to avoid re-contamination of the system.

If cleaning does not reduce exposure, caulk and other known sources of PCBs should be removed as soon as practicable. Caulk that is peeling, brittle, cracking or visibly deteriorating will have the highest potential for release of PCBs into air. EPA recommends that deteriorating caulk be tested directly for the presence of PCBs and removed if PCBs are present at significant levels.

***Caulk that contains PCBs at greater than 50 ppm (parts per million) is not authorized for continued use and must be removed. Although there is no requirement to remove caulk containing PCBs at levels below 50 ppm, EPA suggests removal of the caulk because it may present health risks, depending on the location, condition, etc.***

PCBs in caulk are known to spread to nearby building materials (for example, masonry, wood, concrete) and to soil. Therefore, any nearby building material or soil that has become contaminated by by proximity to 50 ppm or greater PCB-containing caulk, must be properly cleaned or removed. Safely removing the PCB-containing caulk, while preventing further contamination and cleaning up surrounding materials, should be the focus of cleanup projects.

It is important to ensure that PCBs are not released into the air during replacement or repair of caulk and that workers have appropriate personal protective equipment and use proper safe work procedures.

