



Minnesota  
Pollution  
Control  
Agency

# Managing PCB-containing Caulking Waste

Waste/Hazardous Waste 4.48k • February 2010

## What are PCBs?

Polychlorinated biphenyls (PCBs) are a class of 209 man-made chemicals of varying toxicity, used extensively in many industrial products from the 1930's through 1978. During this period PCBs were used as plasticizers in caulking to make it more flexible and long-lasting.

Be aware that in addition to PCBs, caulking may also contain asbestos, or it may contain asbestos alone.

Asbestos-containing caulking is beyond the scope of this guidance; this document only addresses PCB-containing caulking.

Exposure to PCBs can cause a range of human health and environmental impacts. For more information on other potentially PCB-containing materials, see the Minnesota Pollution Control Agency

(MPCA) hazardous waste publications Web site [www.pca.state.mn.us/waste/pubs/business.html](http://www.pca.state.mn.us/waste/pubs/business.html).

## Where might I find PCB-containing caulking in structures?

Caulking commonly surrounds doors and windows as well as in masonry work; it may also have been used in repairs throughout a structure. One cannot determine whether caulking contains PCBs by appearance, by the brand or by the manufacturer. Structures built after 1979 should not have PCB-containing caulking as PCBs were not added to industrial products after 1978.

## How is caulking regulated?

Caulking that is in good condition, and that will remain in place in a part of a structure that will not be demolished or renovated, is not regulated by the MPCA.

However, any caulking used in a pre-1979 era structure (including a single-family

home) is subject to regulation when it is disturbed through renovation or demolition. The MPCA regulates caulking that contains PCBs at 50 parts per million (ppm) or greater as a hazardous waste; the Environmental Protection Agency regulates caulking that contains PCBs at 50 parts per ppm or greater as a PCB bulk product waste.

The level of regulation on caulking containing less than 50 ppm is less stringent; specific management requirements depend upon whether it is still attached to the structure.

Although caulking does not become a regulated waste until disturbed, the EPA has raised concerns regarding indoor airborne exposure to PCB-containing caulking. For more information on PCB exposure and indoor air quality, see EPA Publication # EPA-747-F-09-005, *Preventing Exposure to PCBs in Caulking Material*, available from the EPA Web site at [www.epa.gov](http://www.epa.gov).

## How do I know whether waste caulking contains PCBs?

If a structure built before 1979 is to be renovated or demolished, you must either:

- Assume the caulking contains PCBs at a concentration greater than 50 ppm, remove it and manage it as a hazardous waste; or
- Evaluate a representative sample of each caulking type by testing and showing that it does *not* contain PCBs  $\geq 50$  ppm.

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## Taking a representative sample and testing

The MPCA recommends the use of appropriate personal protective equipment (PPE) during sampling. Contact the Minnesota Occupational Safety and Health Administration (MNOSHA) for guidance.

To evaluate caulking in a structure to be demolished or renovated, you must test a representative sample of each caulking type used. To do this, collect several equal portions of each type of caulking, taking care to avoid releasing dust from dry caulking and to avoid cross contamination of the samples. Carefully and completely mix the individual samples of each caulking type to form a composite sample of each type. Since you may need to crush or pulverize the samples to get a representative composite, take measures to reduce or eliminate the possibility of exposure and related health concerns. Alternatively, you may wish to request the laboratory to mix the composite sample.

Choose a laboratory that can test the composite sample using the methods specified in the Federal PCB Regulations at 40 CFR, Part 761.358 and determine the level of PCBs in the caulking. The Minnesota Department of Health (MDH) maintains a voluntary certification program for environmental laboratories. Although the MPCA encourages the use of a *certified* laboratory, you are not required to use one.

Should you decide *not* to test one the caulking for PCBs, you must assume *all* caulking contains PCBs at levels greater than 50 ppm. Remove it and dispose of it as a hazardous waste.

## Managing PCB-containing caulking at levels greater than 50 ppm

### Removal

If you do not have test results showing the caulking in a pre-1979 structure contains less than 50 ppm PCBs, you must assume it is hazardous waste. Remove the caulking by hand from the portion of the structure to be renovated or demolished, including materials deemed demolition debris. During removal, use appropriate personal protective equipment and take precautions to avoid releasing dust from dry caulking.

### Storage

Store PCB-containing caulking in compliance with either the requirements for

- PCB-contaminated equipment, described in hazardous waste fact sheet #4.48c, *Storage and Disposal of PCB-contaminated Equipment and*

*Wastes*, available on the MPCA Web site at [www.pca.state.mn.us/publications/w-hw4-48c.pdf](http://www.pca.state.mn.us/publications/w-hw4-48c.pdf) or

- PCB bulk-product wastes. These requirements allow for storage at the generation site for up to 180 days provided the PCB waste is stored on an impermeable liner and in a covered pile that will prevent precipitation exposure during storm events.

### Transportation

In Minnesota, shipments of PCB-containing caulking must be accompanied by a hazardous waste manifest, with one exception: construction and service contractors working off site may transport PCB-containing caulking, along with other hazardous wastes, in their own vehicles back to their central site without a manifest. After consolidation at the central location the PCB-containing caulking waste must be shipped for proper disposal, accompanied by a manifest. For more information on transportation of waste by a contractor, see hazardous waste fact sheet #3.11, *Transporting Hazardous Waste Generated by Construction and Service Contractors*, available on the MPCA Web site at [www.pca.state.mn.us/publications/w-hw3-11.pdf](http://www.pca.state.mn.us/publications/w-hw3-11.pdf).

Generators of PCB-containing caulking may transport it in their business vehicle or use a hazardous waste transporter. All transportation must comply with applicable U.S. Department of Transportation (DOT) requirements. For more information on manifesting shipments of PCBs, see hazardous waste fact sheet #4.48e, *Manifest Requirements for Shipping PCB Wastes*, available on the MPCA Web site at [www.pca.state.mn.us/waste/pubs/4\\_48e.pdf](http://www.pca.state.mn.us/waste/pubs/4_48e.pdf)

### Disposal

**You may not dispose of caulking containing PCBs at 50 ppm or greater, either separated or still attached to other demolition debris, at any landfill in Minnesota.**

You have these three options for disposing of PCB-containing caulking:

1. Disposal at a permitted Toxic Substances Control Act disposal facility
2. Disposal at a permitted Resource Conservation and Recovery Act (RCRA) disposal facility
3. Disposal by shipping to a PCB Commercial Storer that will consolidate, then ship it to a permitted disposal facility.

## Reporting

All Minnesota businesses that generate any amount of hazardous waste, including PCB-containing caulking, must obtain a Hazardous Waste Identification Number (EPA ID number) from the MPCA. Those that generate a total of more than 100 pounds per year of hazardous waste, including PCB-containing caulking, must also obtain a Hazardous Waste Generator License.

Generators without a Hazardous Waste Identification Number may request one from the MPCA using form #7.09, *Notification of Regulated Waste Activity*, available on the MPCA Web site at [www.pca.state.mn.us/publications/w-hw7-09.pdf](http://www.pca.state.mn.us/publications/w-hw7-09.pdf).

## Managing caulking containing PCBs at levels less than 50 ppm

Even though the level of PCBs is low enough to make the caulking non-hazardous, the MPCA recommends that, when working with it, you still utilize best management practices to protect employees and the public.

Caulking with PCB levels at less than 50 ppm that **has been removed and separated from the structure** may be disposed of as a municipal or industrial solid waste but may not be disposed of as demolition debris.

Caulking with PCB levels at less than 50 ppm that is **still attached** to a portion of the structure may be disposed of as demolition debris. The demolition landfill you use must have PCB caulking addressed in its Industrial Solid Waste Management Plan. Be aware that even if a demolition landfill is allowed to accept this waste, it may choose not to.

Note: A landfill that can accept non-hazardous PCB caulking may not be permitted to accept asbestos-containing materials. If your non-hazardous waste caulking also contains or may contain asbestos, you must verify with the landfill that it is able to accept asbestos-containing materials before you send waste there. The landfill may have special management requirements for asbestos-containing materials.

## More information

For more information or assistance, contact your metropolitan county hazardous waste staff or MPCA Demolitions/Asbestos or regional hazardous waste staff.

### Metro County Hazardous Waste Offices

Anoka .....	763-422-7093
Carver .....	952-361-1800
Dakota .....	952-891-7557
Hennepin .....	612-348-3777
Ramsey .....	651-266-1199
Scott County .....	952-496-8475
Washington County.....	651-430-6655
Web sites .....	www.co.[county].mn.us

### Minnesota Pollution Control Agency

Demolitions/Asbestos .....	651-296-6300
Toll free (all staff) .....	1-800-657-3864
Brainerd .....	218-828-2492
Detroit Lakes .....	218-847-1519
Duluth .....	218-723-4660
Mankato .....	507-389-5977
Marshall .....	507-537-7146
Rochester .....	507-285-7343
St. Paul .....	651-296-6300
Willmar .....	320-214-3786
Web site .....	<a href="http://www.pca.state.mn.us">www.pca.state.mn.us</a>

### Minnesota Occupational Safety and Health Administration (MNOSHA)

Toll free .....	1-800-DIAL-DLI
Web site .....	..... <a href="http://www.doli.state.mn.us/MnOSHA.asp">www.doli.state.mn.us/MnOSHA.asp</a>