



PCBs—A TOXIC LEGACY, AN ONGOING PROBLEM

PCBs are persistent in the environment, build up in the food chain, and can harm humans and animals, including causing cancer and damaging the immune, nervous, and reproductive systems.

For decades, PCBs were used in electrical transformers and in building materials, such as paint and caulk. Those intentional uses of PCBs were banned 40 years ago. However, some common manufacturing processes can create PCBs as a byproduct, including the creation of some pigments and dyes. The ban on PCBs allowed continued creation of these byproduct PCBs at levels beneath 50 parts per million.

Because PCBs build up in fish and other animals, and because the chemicals are toxic even at very low levels, these byproduct PCBs are a cause for concern.

Testing finds low levels of toxic PCBs in many products

A new report from the Washington Department of Ecology highlights the need to continue to look at the sources of the toxic chemicals called polychlorinated biphenyls, or PCBs.

Although manufacture of PCBs was banned in 1979, small quantities of these chemicals are still allowed to be created as byproducts of some manufacturing processes.

In November, Ecology released a report on the presence of PCBs in common consumer products and packaging. This report is the second of three planned Ecology product testing studies on PCBs in common products, and expands upon the results of the first round of testing.

The testing looked at 201 products that Ecology staff believed could contain byproduct PCBs, including paints, packaging, children’s products and common consumer goods.

Because the testing focused on products believed likely to contain PCBs, it is not representative of all products available. Nor is a single sample of a product sufficient to base purchasing or health decisions on. However, the findings do indicate that byproduct PCBs are relatively common in many everyday products at levels high enough to cause concerns.

The findings

- Testing found that 72 percent of the samples contained PCBs at levels above 1 part per billion.
- Ten samples contained PCBs at levels above 100 parts per billion.
- Three samples contained PCBs at levels above 1 part per million.
- Overall, 89 percent of samples contained detectable levels of PCBs.

ECOLOGY'S PRODUCT TESTING PROGRAM

The Washington Department of Ecology regularly purchases consumer products and tests them to ensure manufacturers comply with state laws and to inform policy decisions by identifying emerging toxic concerns—including PCBs.

MORE INFORMATION

The full PCB product testing report can be found at: <https://fortress.wa.gov/ecy/publications/SummaryPages/1604014.html>

Ecology's PCB chemical action plan can be found at www.ecy.wa.gov/programs/hwtr/RTT/pbt/pcb.html

Ecology is concerned about low levels of toxics in common products. Read more about what this means at <http://bit.ly/everydaytoxicsfacts>

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Special accommodations

To request ADA accommodation for disabilities, or printed materials in a format for the visually impaired, call Ecology at 360-407-6700 or visit <http://www.ecy.wa.gov/accessibility.html>. Persons with impaired hearing may call Washington Relay Service at 711. Persons with speech disability may call TTY at 877-833-6341.

Cause for concern?

The levels of PCBs Ecology found in the products we tested – generally in the parts per billion range – are unlikely to pose an immediate threat to human health. The concern is that the small levels coming from thousands or millions of these products can build up through the food chain, eventually posing real risks for people exposed by eating fish, or causing health effects for top predators such as orca whales. In fact, small quantities of toxic chemicals contained in ordinary household products, including PCBs, are collectively the largest toxic threat we face today.

Large quantities of PCBs are still entering the environment from old paints, caulking and electrical equipment manufactured before PCBs were banned in 1979. The byproduct PCBs that Ecology found through testing consumer products and packaging represent a smaller, but significant portion of all the PCBs that end up in the environment.

The creation of byproduct PCBs at levels below 50 parts per million is generally legal under the federal Toxic Substances Control Act. The U.S. Environmental Protection Agency requires manufacturers to report PCBs in products at levels above 2 parts per million.

However, because PCBs “bioaccumulate” or build up through the food chain until they pose a threat to human health and the environment, many regulatory limits are far lower than these standards for products. For example, Washington's surface water quality standards set a level of 170 parts per *quadrillion* for PCBs – that's 0.000000017 parts per million.

Results inform state policies

Ecology's study was designed to collect additional information on the prevalence of PCBs in a range of products. One goal was to examine general consumer products, such as children's clothing, dyes, cosmetics, body care products, and comic books. Another goal of the study was to inform future purchasing programs for state agencies.

Ecology's third PCB product testing report, scheduled to be completed in 2017, will focus on state-purchased products.

Ecology is working with the Washington State Department of Enterprise Services to identify ways to help agencies avoid or minimize products containing PCBs in their purchasing and contracting. Washington law requires state agencies to purchase products that contain low levels of PCBs or that are PCB-free whenever possible.