



# Dioxin

## What is dioxin?

Dioxin is a by-product of the manufacture and burning of products that contain chlorine such as paper and polyvinylchloride plastics (PVC or vinyl ). Dioxin is just one example of the family of dangerous poisons called Persistent Bioaccumulative Toxics (PBTs or persistent pollutants).



*The Kimberly-Clark pulp mill in Everett is a dioxin polluter.*

## What are some of the dioxin sources in Washington?

- Washington has six pulp mills that use chlorine compounds for bleaching.
- There are two solid waste incinerators, one in Tacoma (currently closed) and one in Spokane.
- Four wood treaters in Bellingham (2), Arlington and Tacoma use dioxin-contaminated pentachlorophenol for treating utility poles and other wood.
- Thirty-nine toxic sites are contaminated with dioxin, including the former Rayonier pulp mill site in Port Angeles.
- Fertilizer made from toxic wastes, including steel mills, cement kilns and pulp mills.

## How Does Dioxin Wind up in Food?

Spewed from smokestacks, dioxin falls on farms, settles on plants and works its way up the food chain. For example, cows eat dioxin tainted grass and we eat the dioxin in their cheese.

Dioxin also gets into water from industrial discharges. Dioxin is now pervasive in fish, beef, poultry, pork, milk and eggs.

Due to dioxin contamination, Washington State has warnings for eating fish from Lake Roosevelt, Budd Inlet, Manchester Park.

At low levels, dioxin can cause a range of health problems from learning disabilities to cancer. The Environmental Protection Agency now estimates that cancer risk from dioxin for the average American is as high as 1 in 1000.



*95% of dioxin exposure is through the food we eat.*

## Alternatives

There are many alternative technologies, processes, and products that do not result in dioxin releases to the environment. Some examples include:

- chlorine-free bleaching for pulp mills.
- reduction, reuse, recycling, composting, and landfilling instead of incineration.
- utility poles made from non-wood materials such as steel, fiberglass or concrete.
- not burning materials or wastes for fuel that contain chlorine compounds.
- buying non-PVC plastic and alternative materials such as glass. More info on PVC alternatives at <http://www.greenpeaceusa.com/toxics/vinylhouse.htm>.



*Penta-treated wood utility poles line our streets and neighborhoods contributing to the dioxin treat.*

## Vision for the Future: Dioxin Solutions

In December 2000, the Washington State Department of Ecology released a plan to phase out and eliminate dioxin, mercury, PCBs and other persistent pollutants. This is a visionary policy that sets the state on the right path, but real actions must be taken now to reduce and eliminate dioxin. So far the agency has not taken action to stop dioxin from pulp mills, wood treaters and incinerators.

### What Can You Do?

- Send the Department of Ecology a letter requesting that dioxin be prioritized for actions that include requiring pulp mills to use chlorine-free technologies, cleaning up toxic sites, and shutting down incinerators. The letter can be sent to: Director Linda Hoffman, Department of Ecology, PO Box 47600, Olympia, WA 98504, [lhof461@ecy.wa.gov](mailto:lhof461@ecy.wa.gov).
- Send a letter to the Department of Agriculture asking for a ban on dioxin-contaminated pentachlorophenol. The letter can be sent to Director Valoria Loveland, Washington Department of Agriculture, PO Box 42560, Olympia, WA 98504; or via e-mail at [vloveland@agr.wa.gov](mailto:vloveland@agr.wa.gov).
- Avoid PVC/vinyl products in the store. You can identify some products by the #3 on the bottom of the container. Other PVC products to watch out for include: vinyl flooring and wall coverings, vinyl toys, shower curtains, and vinyl siding.
- Buy recycled, chlorine-free paper products. Go to [www.watoxics.org](http://www.watoxics.org) and then to our Toxic-Free Legacy Resources page for a list of chlorine-free recycled paper and distributors.