

DIOXIN

One of the Most Toxic Chemicals on Earth



■ What Is Dioxin?

Dioxin is an extremely toxic chemical that travels long distances in the atmosphere and persists in the environment for long periods of time. High levels of dioxin are even found in people living in the remote Arctic. Agent Orange contains dioxin, and it was a main culprit in high-profile toxic cleanups at Love Canal, New York and Times Beach, Missouri. Dioxin is a byproduct of processes that use or burn chlorinated products such as plastics. Garbage and medical waste incinerators are two of the largest sources of dioxin identified by the federal Environmental Protection Agency (EPA). EPA's cancer risk estimates from dioxin exposure are higher than for any other chemical estimated by government agencies anywhere in the world. [EPA 1985,1994]

■ How Are We Exposed To Dioxin?

Over 96 percent of our dioxin exposure comes from eating meat, dairy products, eggs and fish. [EPA] Dioxin particles from incinerators and industrial plants travel far and wide, eventually settling and contaminating our soil, water, and plants. Because it does not break down easily, over time it accumulates in the environment and is eaten and stored in the fat tissue of animals and then humans.

■ What Are The Health Problems?

Dioxin causes a wide array of serious health problems in both animals and humans.

Dioxin Causes Cancer: Dioxin is a potent cancer-causing agent and is a "known human carcinogen." [WHO & US HHS] According to an EPA report, the levels of dioxin-like compounds found in the general population may cause a lifetime cancer risk as high as one in every 1,000 people—1,000 times higher than EPA's generally "acceptable" cancer risk level of one in 1,000,000 people. Studies of humans exposed to dioxin consistently find increased risks for all cancers in the general population, and increased lung cancer in exposed workers.

Dioxin Causes Many Other Health Problems

■ In human studies, dioxin is associated with weakened immune systems, increased infections, disruption of hormone function, irregular thyroid levels in infants and adults, and altered glucose tolerance with links to diabetes.

■ In children, IQ deficits, delays in psychomotor and neurodevelopment, and altered behavior including hyperactivity, have all been linked with dioxin exposure.

■ Studies of workers exposed to dioxin found lowered testosterone levels and decreased testis size, and children of Vietnam veterans exposed to Agent Orange have documented birth defects.

■ Animal studies show dioxin exposure is associated with endometriosis, decreased fertility, inability to carry pregnancies to term, lowered testosterone levels, decreased sperm counts, birth defects, and learning disabilities.

BE SAFE: Take Precautionary Action to Eliminate Dioxin from Our Environment and Prevent Further Harm

BE SAFE's FOUR PRINCIPLES

1. HEED EARLY WARNING SIGNS

We must heed the early warning signs that dioxin causes cancer and other serious health problems, and is contaminating every corner of the globe. We need to act now based on what we know about dioxin and our experience with DDT, another persistent toxic chemical, which even after being banned decades ago, is still found at levels toxic to humans and animals today. We must take precautionary action now to eliminate dioxin from our environment to ensure the health and safety of future generations.

2. PUT SAFETY FIRST

Incinerators and other industries release millions of pounds of dioxin every year that contaminate our air, water and food. [GBPSR 2000]. Increased cancer in the general population and growing childhood diseases and disabilities could have a devastating impact on our nation and future generations. [CPOC 2001]. Since dioxin comes from heating and combustion of chlorine-based products, no new products should be put on the market until it is proven dioxin will not be released during their manufacture or disposal. An independent scientific review should verify any industry claims of dioxin-free processes. Incineration should be banned and replaced with environmentally-sound disposal technologies and waste reduction practices.

3. EXERCISE DEMOCRACY

In communities where dioxin is discharged to the environment, workers and residents must be part of the decision-making process to make sure testing and protective cleanups occur as local dioxin-generating industries are transitioned to clean production facilities. (See *Just Transition Brochure*).

4. CHOOSE THE SAFEST SOLUTIONS

The safest solutions must be used as we transition to cleaner technologies, such as using hydrogen peroxide instead of chlorine for bleaching paper, and replacing chlorinated plastics like polyvinyl chloride (PVC) with non-chlorinated plastics. (See *PVC Brochure*) Government and consumers must stop purchasing chlorinated products when alternatives exist. In communities where backyard burn barrels are used, public education and labeling must inform people they should not burn plastics. In addition, permanent cleanup technologies should be further developed and used to eliminate dioxin from communities rather than the standard practice of moving the waste to a landfill.

BE SAFE is coordinated by the Center for Health, Environment & Justice. To sign the platform or for more information, contact us at CHEJ, P.O. Box 6806, Falls Church, VA 22040, 703-237-2249, or 518-732-4538, or visit www.besafenet.com

CALIFORNIA BAY AREA LEADS NATION IN PREVENTING DIOXIN POLLUTION

The San Francisco Bay Area is leading the nation in preventing dioxin pollution by passing *Dioxin Resolutions* in five cities and establishing dioxin-free purchasing requirements for local governments. The resolutions grew out of a grassroots campaign to shut down the last commercial medical waste incinerator in California, one of the largest sources of dioxin in the Bay Area. A diverse coalition of environmental, environmental justice, and health - impacted groups; labor representatives; and local government officials worked together to shut down the incinerator in 2001. In the process, they convinced local governments to pass Dioxin Resolutions and establish a Bay Area Government Task Force to implement the resolutions that will:

- Promote dioxin pollution prevention practices;
- Use less toxic, non-chlorinated products and processes, such as chlorine-free paper and PVC-free plastics;
- Urge health care institutions to phase out PVC products;
- Work with other local governments to convene a Regional Task Force to identify sources of regional dioxin pollution and develop prevention strategies; and
- Pursue dioxin reduction practices that do not cause workers to become unemployed.

For more details or a copy of a sample resolution, visit the *Alliance for Safe Alternatives Campaign* at www.chej.org.

■ **Avoid Chlorinated Products.**

Buy chlorine-free paper for printing or copying. Do not buy products made from or packaged in PVC plastic (#3 or V inside recycle symbol).

■ **Pass Chlorine-Free Purchasing Resolutions.**

Ensure your local government, schools, and religious institutions only buy chlorine-free products.

■ **Join the Nationwide Campaign.**

Stop persistent toxic chemicals such as dioxin. Visit the national Center for Health, Environment & Justice at www.chej.org.

■ **BE SAFE.**

Take precautionary action to eliminate dioxin from our environment and prevent further harm. Sign on to the BE SAFE Platform on the next page. Be counted when we deliver this national Platform to the White House in 2005. Endorse the BE SAFE Platform today at www.besafenet.com

■ **Your Vote Counts.**

The next election will set the country's course on dioxin policies. For information on state and federal environmental voting records, contact www.sierraclub.org and www.lcv.org. To register to vote, contact www.earthday.net.

References:

Environmental Protection Agency (EPA), *Dioxin Health Assessment 1985, Exposure & Human Health Reassessment of 2,3,7,8-Tetrachlorodibenzo-p-Dioxin (TCDD) and Related Compounds*, 1994; IARC, *Monographs on the Evaluation of Carcinogenic Risks to Humans*, Vol. 69, 1997; World Health Organization (WHO) and the US Department of Health and Human Services' National Toxicology Program (US HHS), January 2001 *Addendum to the Ninth Report on Carcinogens*; Greater Boston Physicians For Social Responsibility, *In Harms Way: Toxic Threats To Children's Development*; 2000; CHEJ, *American People's Dioxin Report*; CPOC, *Poisoned Schools: Invisible Threats, Visible Actions* 2001.

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BE SAFE Platform

In the 21st century, we envision a world in which our food, water and air are clean, and our children grow up healthy and thrive. Everyone needs a protected, safe community and workplace, and natural environment to enjoy. We can make this world vision a reality. The tools we bring to this work are prevention, safety, responsibility and democracy.

Our goal is to prevent pollution and environmental destruction before it happens. We support this precautionary approach because it is preventive medicine for our environment and health. It makes sense to:

- *Prevent pollution and make polluters, not taxpayers, pay and assume responsibility for the damage they cause;*
- *Protect our children from chemical and radioactive exposures to avoid illness and suffering;*
- *Promote use of safe, renewable, non-toxic technologies;*
- *Provide a natural environment we can all enjoy with clean air, swimmable, fishable water and stewardship for our national forests.*

*We choose a “better safe than sorry” approach motivated by caution and prevention.
We endorse the common-sense approach outlined in the BE SAFE’s four principles listed below.*

Platform Principles

HEED EARLY WARNINGS

Government and industry have a duty to prevent harm, when there is credible evidence that harm is occurring or is likely to occur—even when the exact nature and full magnitude of harm is not yet proven.

PUT SAFETY FIRST

Industry and government have a responsibility to thoroughly study the potential for harm from a new chemical or technology before it is used—rather than assume it is harmless until proven otherwise. We need to ensure it is safe now, or we will be sorry later. Research on impacts to workers and the public needs to be confirmed by independent third parties.

EXERCISE DEMOCRACY

Precautionary decisions place the highest priority on protecting health and the environment, and help develop cleaner technologies and industries with effective safeguards and enforcement. Government and industry decisions should be based on meaningful citizen input and mutual respect (the golden rule), with the highest regard for those whose health may be affected and for our irreplaceable natural resources—not for those with financial interests. Uncompromised science should inform public policy.

CHOOSE THE SAFEST SOLUTION

Decision-making by government, industry and individuals must include an evaluation of alternatives, and the choice of the safest, technically feasible solutions. We support innovation and promotion of technologies and solutions that create a healthy environment and economy, and protect our natural resources.

Take precautionary action to eliminate dioxin from our environment and to prevent further harm.

Sign onto the BE SAFE Platform.

Be counted when we deliver this national platform to the White House in 2005.

Endorse the platform today at www.besafenet.com

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