

# Clean Car Production



Automobile production is the world's largest manufacturing industry, accounting for over 6.6 million jobs worldwide. While most people are aware of the air pollution and global warming consequences of today's automobiles, few people are aware of the enormous environmental impacts from the production, manufacture and disposal of cars. The automobile production process generates more pollution than any other manufacturing industry—at least five times more than computers and 20 times more than refrigerators and freezers. Automobiles are the nation's fourth leading source of mercury emissions, the top user of lead and source of its release to the environment, as well as a significant source of dioxin emissions from polyvinyl chloride (PVC) plastic. [CCC]

Much of this pollution consists of highly hazardous materials that cause cancer, infertility and harm to unborn children who are most vulnerable to the effects of heavy metals and other persistent toxic chemicals released during the vehicle's lifecycle. This includes the 12 million or so cars that are junked each year in the U.S. at the end of their lifecycle.

## BE SAFE's FOUR PRINCIPLES

### 1. HEED EARLY WARNING SIGNS

Many of the materials used to make cars have inherently harmful properties. We must heed the early warning signs of the impacts of using these materials on people and the environment, as demonstrated by the following three key toxic materials used in cars.

#### Mercury

Reducing the emissions and use of mercury has become a priority at the state, federal, and international level. Over 2,500 waters in 47 states and all of the Great Lakes contain fish that are so heavily contaminated with mercury and other persistent toxic chemicals that the federal Environmental Protection Agency (EPA) warns pregnant women and other people not to eat more than a few servings a month. [EPA] Mercury is a highly toxic heavy metal that can damage the nervous system, kidneys and developing fetuses. Nearly 200 metric tons of mercury are present in as many as 50 million light switches in vehicles currently on the road in the U.S. [CCC]

#### Vinyl/PVC

There is also concern about human health and environmental impacts from the production, use and disposal of PVC, or vinyl, a commonly used plastic. Vinyl products can contain persistent toxic chemicals such as lead. During production, manufacture and disposal, PVC generates a highly toxic chemical called dioxin. In North America, the

**BE SAFE: PROMOTE SAFER NON-TOXIC  
AUTOMOBILE DESIGNS**

auto industry uses over 368 million pounds of PVC each year. With over 12 million vehicles being retired annually, automobiles are a major source of toxic air emissions from all the PVC products in vehicles, including wiring, undercoating, seals, steering wheels, molding, and coated fabrics. PVC in vehicle interiors also releases hazardous emissions (including endocrine disruptors) by off-gassing volatile ingredients, potentially exposing drivers. When PVC is burned, it emits dioxins, which have been linked with cancer and reproductive disorders. Over 500,000 vehicle fires occur each year in the U.S.

### **Lead**

Lead emissions contribute to the contamination of our environment and cause significant health impacts, particularly amongst our children. Today, children in the U.S. are poisoned through chronic, low-level exposure to lead and its compounds. Low-level lead exposure can cause reduced IQ and attention span, hyperactivity, impaired growth, reading and learning disabilities, hearing loss, insomnia, and a range of other health, intellectual, and behavioral effects. As such, lead poisoning is still an important health problem, affecting an estimated 890,000 preschoolers. [CDCP]. Lead is used in a variety of automotive applications, including batteries, wheel weights, electronics, as a steel alloy; and stabilizer for PVC. The current North American vehicle fleet contains more than 3 million metric tons of lead. Even though 93% of batteries are recycled in the U.S., about 40,000 tons of lead were still discarded in landfills in 1999. The EPA estimates smelters that burn auto batteries are the largest source of lead emissions in the U.S.

## **2. PUT SAFETY FIRST**

We must put safety first and promote the use of safer materials in manufacturing automobiles. For example, there are safer alternatives for the three key toxic materials described above.

### **Mercury**

A growing number of communities and states are establishing programs for collecting and recycling auto mercury switches. In Maine, automakers are required to establish collection centers and provide incentives for auto dismantlers to remove them before scrapping. In Oregon, the Northwest Auto Trades Association and AAA have organized over 200 service stations and dealers to provide citizens with the opportunity to replace mercury switches with a nontoxic switch.

### **PVC/Vinyl**

PVC-free alternatives for vehicles are already in use by some manufacturers, including polyethylene insulated wiring, non-PVC instrument panels and interior trim, and plastic underbody panels. In 1999, General Motors announced it would phase out the use of PVC for most interior panels by 2004, but has recently indicated they may reconsider their pledge.

### **Lead**

Lead-free alternatives are also available for nearly all lead uses in vehicles, including batteries that can use nickel and lithium instead. Lead wheel balancing weights can be replaced with tin or steel weights, and lead-stabilized PVC plastics can be replaced with polyethylene and other plastics

## **3. EXERCISE DEMOCRACY**

Government and auto industry decision-makers need to hear from citizens who are concerned about toxic pollution from the products they purchase and use. Let them know you expect the automobile industry to reduce and eliminate its use of hazardous materials in vehicles, and take responsibility for the materials in vehicles now on the road. New government policies are now needed to phase-out toxic materials and require “producer responsibility” for the hazards caused by a manufacturer’s products.

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](http://www.besafenet.com)

## 4. CHOOSE THE SAFEST SOLUTIONS

- **Ask Before You Buy.** Ask for information about the materials used in a vehicle before you make a purchase. Avoid vehicles if manufacturers cannot show they have eliminated or significantly reduced heavy metals (like lead and mercury), or toxic PVC plastic (e.g., used in door trim, instrument panel, and carpet backing). For more information, visit [www.cleancarcampaign.org/vehicleproduction](http://www.cleancarcampaign.org/vehicleproduction).
- **Replace Mercury Switches.** If your vehicle was made by a domestic producer and has a hood or trunk light, it likely contains a mercury switch. Ask your dealer to replace it with a safe ball-bearing switch so it will not end up in a scrapyard. For more information, visit [www.cleancarcampaign.org/switch\\_the\\_switch](http://www.cleancarcampaign.org/switch_the_switch).
- **Support Clean Car and EPR Campaigns.** Encourage your policymakers to establish Clean Car and Extended Producer Responsibility (EPR) laws requiring automakers to phase-out hazardous materials and safely recover materials from vehicles already on the road. For more information, visit [www.cleancarcampaign.org/modellegislation](http://www.cleancarcampaign.org/modellegislation).
- **BE SAFE.** Take precautionary action to support clean car production. 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](http://www.besafenet.com).
- **Your Vote Counts.** The next election will set the country's course on clean car policies. For information on environmental voting records, contact [www.sierraclub.org](http://www.sierraclub.org) and [www.lcv.org](http://www.lcv.org). To register to vote, contact [www.earthday.net](http://www.earthday.net)

## Get the Mercury Out Maine Passes Landmark Law

The national Clean Car Campaign has focused on the use of mercury in automobiles as a key test case for getting automakers to take responsibility for the materials being designed into their vehicles. Using traditional campaign tools such as grassroots organizing, coalition building with unlikely allies (such as auto dismantlers, and the steel and steel scrap industries), and legislative policy work, the campaign was successful in pressuring automakers to phase out the primary use of mercury in vehicles—mercury switches.

The campaign also secured a major legislative victory when the state of Maine passed mercury “take-back” legislation mandating that auto manufacturers set up a system for recovering mercury switches at a vehicle’s end-of-life. Take-back policies are part of a broader policy framework known as Extended Producer Responsibility (EPR), or product “take back,” and have been widely and successfully used throughout Europe and Japan for a variety of product categories, including automobiles. (See *Producer Responsibility Brochure*.) The new Maine law sets an important precedent in this country for broader EPR policies like the European Union’s Directive on End-of-Life Vehicles, which includes phase-outs of problematic materials (e.g., mercury, lead and cadmium) and sets targets for the increased recyclability of vehicles to encourage reuse of their components. For more information, visit [www.cleancarcampaign.org](http://www.cleancarcampaign.org).

### References:

Clean Car Campaign [CCC]; Environmental Protection Agency [EPA]; 1991-1994. *NHANES III, Phase 2*, Centers for Disease Control and Prevention [CDCP], <http://www.aeclp.org/>.

**Primary Contributor:** Charles Griffith and Jeff Gearhart, Ecology Center.

# ***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.

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**Take precautionary action to support clean car production.  
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](http://www.besafenet.com)

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