


# EXECUTIVE SUMMARY


Most people barely give a thought to an empty plastic bottle before they toss it. But what they don't know is that behind that bottle lurk hidden hazards, from the bottle's origins as fossil fuel to its disposal as waste or litter.

**A** first-ever study, *Hidden Hazards: The Chemical Footprint of a Plastic Bottle*, reveals the potential threats to human health, environmental justice, and climate change created by the chemical manufacturing and plastics production processes required to turn crude oil and fossil gas into plastic bottles, as well as from consumption of plastic-bottled beverages and final disposal of the bottles.

**Worldwide, the beverage industry buys more than 500 billion plastic bottles every year to package its products.** This insatiable demand for plastic bottles drives the production of a common plastic known as **polyethylene terephthalate or PET**. Plastic bottles consume a quarter of all PET plastic production worldwide.

The report finds that, all along its chemical supply chain, PET plastic pollutes air, water, and food with cancer-causing chemicals. **PET plastic is the top polluter** among all industries across the United States for three carcinogens:

 **ETHYLENE OXIDE IN THE AIR.** Air emissions from chemical manufacturers that supply PET plastics expose more than 3 million people in the Gulf Coast to serious cancer risks, far greater than any other hazardous air pollutant.

 **1,4-DIOXANE IN DRINKING WATER.** Discharges from PET plastic production pollute drinking water sources in the Southeast US with this persistent cancer-causing chemical that may pose an unreasonable human health risk.

 **ANTIMONY IN FOOD & BEVERAGES.** Antimony, used to speed up plastic production, migrates out of PET plastic bottles and packaging and is a major source of antimony in food and drinks.

The report also shows that **demand for plastic bottles promotes environmental racism.** The health burden of PET plastic production falls disproportionately on communities of color and low-income people, largely in the Gulf Coast and Southeast US. For example, 64% percent of the residents

facing serious cancer risk from ethylene oxide emissions are people of color, while the US population at large is 41% people of color.

Finally, the report demonstrates that the beverage industry's **addition to plastic bottles worsens the climate crisis.** The PET plastic supply chain emits nearly nine million metric tons of greenhouse gases in North America every year, about the same amount as the annual emissions of two million cars. With PET production projected to double in the next decade, so will its climate impacts.

Hidden Hazards uses **The Coca-Cola Company** as a case study to illustrate corporate responsibility for supply chain impacts from over-reliance on PET plastic. Coca-Cola has been named the number one plastic polluter for five years running by BreakFreeFromPlastic for its name-brand litter, and the company buys and sells more than 125 billion plastic bottles every year, consuming about 6% of all PET plastic produced worldwide.

The report urges Coca-Cola and other beverage companies to take immediate action to require suppliers to replace antimony and cobalt in plastic bottles with safer alternatives and to achieve zero discharge of cancer-causing chemicals to the air and water along its supply chain. By 2030, these companies should replace 50% of plastic bottles with reusable and refillable container systems and end the use of virgin fossil-based PET plastic by 2040 to help solve the climate crisis.

**THE REPORT FINDS THAT, all along its chemical supply chain, PET plastic pollutes air, water, and food with cancer-causing chemicals. PET plastic is the top polluter among all industries across the United States for three carcinogens: ethylene oxide in the air, 1,4-dioxane in drinking water, and antimony in food and beverages.**