

Some bottled water toxicity shown to exceed law

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Bottled water brands do not always maintain the consistency of quality touted in ads featuring alpine peaks and crystalline lakes and, in some cases, contain toxic byproducts that exceed state safety standards, tests show.

The Environmental Working Group, a nonprofit organization with offices in Oakland, tested 10 brands of bottled water and found that Wal-Mart's Sam's Choice contained chemical levels that exceeded legal limits in California and the voluntary standards adopted by the industry. The tests discovered an average of eight contaminants in each brand. Four brands besides Wal-Mart's also were contaminated with bacteria. The environmental group filed a notice of intent to sue Wal-Mart Tuesday, alleging that the mega-chain failed to warn the public of illegal concentrations of trihalomethanes, which are cancer-causing chemicals.

"The investigation has uncovered that consumers cannot be assured of the quality of their bottled water," said Olga Naidenko, a toxicologist at the Environmental Working Group and lead author of the bottled-water study.

"Our study was a snapshot of the marketplace. We found some brands that provided good quality and other brands that contained various chemical pollutants. What this shows is that consumers cannot have confidence. They don't know what they're getting," she said. Some of the Sam's Choice bottled water purchased from Wal-Marts in Mountain View and Oakland came from Las Vegas Valley Water District's sometimes-chlorinated public water supply, the group found.

The Las Vegas water supply meets federal standards for toxic chemicals that form when disinfectants such as chlorine react with organic matter, sometimes in reservoirs. The federal standard is 80 parts per billion. But in California, the byproducts standard in bottled water is eight times as strict, possibly making Wal-Mart liable for action under Proposition 65, the Safe Drinking Water and Toxic Enforcement Act of 1986. In 1995, after animal tests showed that the byproducts could cause cancer and reproductive damage in lab animals, California added the bottled water provisions to the health and safety code, setting a standard at 10 parts per billion.

The Food and Drug Administration requires bottled water to meet the same standards as tap water from public systems - which is 80 ppb. The FDA doesn't require bottled water companies to inform consumers of the source and presence of contaminants. Yet by law, public water companies must send customers annual information about sources and the presence of contaminants such as trihalomethanes, arsenic, nitrates and fluoride in the water supply.

Study findings

In the Environmental Working Group study, the University of Iowa Hygienic Laboratory screened for 170 possible contaminants. The lab found 38 pollutants in 24 samples from 10 major brands purchased by the group in California, Washington, D.C., and eight other states.

The environmental group won't release the names of eight other brands it tested, saying it would do so only after it conducts more-extensive testing. After some checking, he said a local water-bottling company that sells to the Strip could be supplying Wal-Mart as well. Some findings from the study:

- Three samples of Sam's Choice bought in Oakland, Mountain View and Fayetteville, N.C., contained levels of total trihalomethane between 14 ppb and 37 ppb, exceeding the state and industry standard of 10 ppb.

- One of the byproducts, bromodichloromethane, also a carcinogen, is even more toxic to lab animals and is more strictly controlled

The state's cancer safety standard is 2.5 ppb. Three bottles of Sam's Choice purchased in Mountain View and Oakland contained the contaminant at levels from 7.7 ppb and 13 ppb.

- Also present in bottled water were caffeine and the pharmaceutical Tylenol, as well as arsenic, radioactive isotopes, nitrates and ammonia from fertilizer residue. Industrial chemicals used as solvents, degreasing agents and propellants were also found in the test

- Trace amounts of synthetic chemicals or degradation products from the manufacture of PET, or polyethylene terephthalate, plastic bottles were found, including acetaldehyde, isobutane and toluene. At those low levels, scientists can't ascertain the health effects.

Bottled vs. tap

Americans drank more than 9 billion gallons in 2007, and fewer than half of 228 brands of bottled water reveal their source. Typical cost is \$3.79 per gallon, 1,900 times the cost of public tap water. Green campaigns have focused on steering away from bottled water because manufacturing, transporting and sending unrecycled bottles to the landfill use natural resources and create an environmental burden.

San Francisco Mayor Gavin Newsom issued an executive order in June 2007 barring use of city funds to purchase bottled water.

"The primary reason is that it can cost a thousand times more, and you're not even getting better quality water," said Tony Winnicke spokesman for the city Public Utilities Commission. "There have been hundreds of millions of dollars spent to market the myth that bottled water is purer and safer than the tap water. The study is further evidence that the myth is often a lie."

Guide to safe drinking water

Filters: Drink filtered tap water instead of bottled water. Use carbon filters, pitcher or tap-mounted. They reduce lead and disinfect byproducts. Install a reverse osmosis filter if you can afford it.

Containers: Carry water in stainless steel containers.

Research: Learn what's in your tap water. Suppliers publish water-quality tests. Find the full report on bottled water quality by the Environmental Working Group at www.ewg.org.

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