

## Alternatives to BPA containers not easy for U.S. foodmakers to find

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Major U.S. foodmakers are quietly investigating how to rid their containers of Bisphenol A, a chemical under scrutiny by federal regulators concerned about links to a range of health problems, including reproductive disorders and cancer.

But they are discovering how complicated it is to remove the chemical, which is in the epoxy linings of nearly every metal can on supermarket shelves and leaches into foods such as soup, liquid baby formula and soda. It is a goal that is taking years to reach, costing millions and proving surprisingly elusive.

Randy Hartnell, whose company, Vital Choice, sells products aimed at health-conscious consumers, switched last year to can linings made without BPA. It was a costly move that he figured would resonate in the niche market that buys his canned wild salmon and low-mercury tuna.

But a recent Consumers Union test detected small amounts of BPA in Vital Choice tuna, raising questions about whether it is possible to clean the food supply of the ubiquitous chemical. The consumer group also found trace amounts of BPA in baked beans made by Eden Foods, the only other U.S. company that says it has switched to BPA-free cans.

"What we're hearing is, the stuff is just omnipresent," said Hartnell, whose Washington state company has spent as much as \$10,000 on lab tests trying to pinpoint the source of BPA in its canned tuna. "Is it in the cutting board? The gloves that people wear who are working on the fish? Is it in the tuna itself? We don't know. We're trying to figure it out."

The food industry's efforts began even before the FDA announced last month that it had reversed its position and is concerned about the safety of BPA, which is used in thousands of consumer goods, including compact discs, dental sealants and credit card and ATM receipts. Government studies estimate that the chemical has been found in the urine of more than 90 percent of the population.

Foodmakers started looking for alternatives in 2008, after public pressure spurred manufacturers of plastic baby bottles to voluntarily rid their products of BPA. Several municipalities, Minnesota and Canada banned BPA from baby bottles. And Congress is considering a bill filed by [Sen. Dianne Feinstein](#) (D-Calif.) and [Rep. Edward J. Markey](#) (D-Mass.) that would ban BPA

from baby bottles, sports water bottles, reusable food containers, infant formula liners and food can liners.

But foodmakers say they aren't waiting for legislation or regulation.

"It doesn't matter what FDA says. If consumers decide they don't want BPA, you don't want it to be in a can that consumers don't want to buy," said one source at a major U.S. food company who spoke on the condition of anonymity. Major food companies declined to talk publicly about their efforts to find a replacement for BPA linings. "We don't have a safe, effective alternative, and that's an unhappy place to be," the source said. "No one wants to talk about that."

Heinz, for instance, says it has switched to BPA-free cans for some products but will not identify them or say what substitute it is using. General Mills, which owns the Progresso and Muir Glen lines of canned products, said it is testing BPA-free cans but would not elaborate. "We are optimistic that safe and viable alternatives will be identified in time," said Thomas Forsythe, a company spokesman.

The Environmental Protection Agency has declared the daily safe BPA exposure limit at 50 mg per kilogram of body weight, a level set in the 1980s. A growing body of peer-reviewed research in the past decade has suggested that very low levels -- below the federal threshold -- might be responsible for health problems. BPA is a synthetic version of estrogen, and scientists disagree about whether it causes lasting effects by triggering subtle cellular changes.

John M. Rost, chairman of the North American Metal Packaging Alliance, which represents the canned food and beverage industry, said BPA has been "used safely in metal food packaging for decades. They have been deemed safe by regulatory agencies around the world." He also said there hasn't been a case of food-borne illness resulting from a failure of metal packaging since the industry began using BPA in its linings more than 30 years ago.

Commercial uses of BPA exploded in the 1950s after scientists discovered its ability to make plastics more durable and shatterproof. By 1963, scientists were using it to create epoxy linings for steel cans, which held up under heat and other extreme conditions. Because the BPA linings extended the shelf life of canned goods, did not affect taste, prevented bacterial contamination and were relatively cheap, they became the industry standard by the 1970s.

The FDA does not know which companies use BPA, how much they use or how it is applied, because manufacturers are not required to disclose that information.

Some companies have had trouble finding out whether their cans contain BPA.

Michael Potter, chief executive of Eden Foods, which makes canned organic products, began asking suppliers about his can linings after reading German research about BPA. "Trying to determine what was in the can linings that I was purchasing to put food in was a daunting task," he said. "Inevitably, you end up speaking to a large law firm inside the Beltway that says you don't have the right to know."

It took two years, but in 1999, Potter prompted one supplier, the Ball Corp., to switch to a can lined with oleoresin, a mixture of oil and a resin extracted from plants such as pine.

The new cans are 14 percent more expensive, about 2.2 additional cents per can, Potter said. "It went into our costing, and we passed it onto our customers," he said.

But oleoresin deteriorates in contact with acidic food, forcing Eden Foods to use BPA in its linings for canned tomatoes. Potter said that was why trace amounts of BPA -- one part per billion -- were detected by Consumers Union in Eden Foods' baked beans. The beans were made with tomato puree that had been stored in a can with a BPA lining.

The EPA and the FDA, which oversees the use of BPA in food and beverage containers, are reviewing the chemical in light of new research. Last month, the FDA said it would launch fast-track studies to clarify the research on BPA. It is also encouraging manufacturers to migrate away from the chemical.

But the process is slow, because testing must take into account a shelf life of two to five years for most canned foods. "You don't want to find out that you made a switch based on six months of data but by 18 months the lining breaks down and people are eating it," an industry source said.

Makers of plastic bottles found a quick and relatively simple BPA substitute, polypropylene, but canned-food makers are having considerably more trouble.

Foodmakers say that some alternative linings disintegrate, reducing a product's shelf life. Other linings can't withstand the high heat applied to certain canned products to kill bacteria. Still others interfere with taste.

Consumer concerns led Japanese manufacturers to voluntarily reduce the use of BPA between 1998 and 2003. But because cans were primarily used for drinks, they could use a relatively simple polyester substitute. The Japanese also got rid of tableware containing BPA used for school lunches. After the change, Japanese scientists documented a significant drop in BPA levels in research subjects' blood.

Aaron L. Brody, a food packaging expert who teaches at the University of Georgia, said that even if health concerns are not valid, "if they had an economic can coating that could be applied to food and/or beverage cans today, the coatings industry, the canning industry, would have applied it instantly to get this monkey off their back."