

Plastic-Bottle Scare Is a Boon for Some

By IAN AUSTEN

OTTAWA — Canada's decision to label as toxic a chemical that is used to make a popular form of plastic has created headaches for some makers of baby bottles, sports water bottles and other food and beverage containers.

But it may prove to be a bonanza for companies like **Eastman Chemical**, which makes a comparable plastic without the offending ingredient, as well as for makers of glass and food-grade stainless steel.

The Canadian government took the action last week against the chemical bisphenol-a, or BPA. Animal studies indicate that the chemical, which mimics a human hormone, can induce long-term changes in animals exposed to it. BPA is used in polycarbonate plastic, a favorite material for bottles and other containers because it is as hard and transparent as glass but resists shattering.

Canada has banned only infant bottles made with the substance, and says that polycarbonate containers of all types are safe for anyone over the age of 18 months.

Nevertheless, most of Canada's major retailers have stripped polycarbonate containers from shelves, and leading makers of sports bottles and containers are rapidly moving toward alternative plastics and other materials.

"Regardless of what the data may prove 20 years from now about polycarbonates, there's no sense in pushing a rope uphill on that," said Sally McCoy, the president and chief executive of **CamelBak**, a sports bottle maker

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based in Petaluma, Calif.

While the reaction against polycarbonate in the United States has not reached the level that it has in Canada, 10 states, including California and Massachusetts, as well as Congress are dealing with proposed legislative bans on the plastics.

"There is an extraordinary fear level right now, whether or

not it is justified on the scientific side," said Carol Schreitmuller, director of research and development for **Pacific Market International**, the maker of **Aladdin** food containers and water bottles, based in Seattle. "It is going to change what happens to materials. We have to decide if people will trust this material anymore."

But Ms. Schreitmuller need not worry about retailers taking her company's water bottles off their shelves. Since February, those **Aladdin** products have been made with **Tritan** copolyester, a product that Eastman introduced last October, in what has since become a happy coincidence.

Eastman says it is the first plastic that has the advantages of polycarbonate but is not made using BPA.

Faced with that outlook, most leading makers of sports bottles and containers are rapidly moving away from polycarbonates to alternative plastics and other materials. Their headaches may prove to be a bonanza for companies like **Eastman Chemical** as well as makers of glass and food-grade stainless steel.

Ms. Schreitmuller began her hunt for polycarbonate alternatives back in 2001. At the time, the **Aladdin** company was developing coffee and tea mugs for sale in Japan, where concerns about BPA were already developing.

The Japanese mugs were ultimately made using styrene acrylonitrile, a plastic made by **Lanxess**, a German chemical producer.

But that plastic is not as transparent as polycarbonate, and it cracks when dropped on a hard surface. Other materials Ms. Schreitmuller reviewed had poor survival rates in dishwashers.

In 2006, after noticing a rise in concern about BPA in North America, Ms. Schreitmuller began phoning "pretty much every chemical company in the world" to see whether they were developing a BPA-free plastic that offered polycarbonate's strength,

clarity and resistance to imparting or absorbing flavor. "I only got one 'yes', from Eastman," she said.

Eastman began developing the new plastic about five years ago, said Debbie Baum Crain, the company's director of copolyester innovation. Customers were requesting a polycarbonate substitute that was less prone to cracking in commercial dishwashers.

Aladdin and **CamelBak** both worked with Eastman on the plastic's development. Other users of the new plastic include the bottle maker **Nalgene**, which made polycarbonate famous but has decided to abandon it, and **Vita-Mix**, which makes its blender containers from the plastic.

Other companies looking to join them may have to wait. Eastman's main **Tritan** production plant is still under construction in Kingsport, Tenn., and will not be fully operational until late 2009.

Tritan is more expensive than polycarbonate. While Ms. McCoy at **CamelBak** would not give details on the extra cost, she did note that **CamelBak's** smallest **Tritan** bottle sells for \$1 more than its \$8 polycarbonate counterpart.

That may leave some room for other materials. **Born Free**, a baby bottle maker based in Israel, relies on polyethersulfone rather than polycarbonate, said Ron Vigdor, the president of its distribution arm in the United States and a co-founder of the parent company. That plastic, whose suppliers he declined to identify, has a yellowish tinge and is four to five times as expensive as polycarbonate, making it even more costly than **Tritan**.

Owen-Illinois has resumed production of glass infant feeding bottles for the first time in about 20 years. And **SIGG**, a 100-year-old Swiss maker of aluminum sports bottles, said in a statement that its North American sales were five times what they were at this point in 2007. The company declined to provide specific sales figures.



While plastics like Tritan enable bottle makers to label their products BPA-free, they may not bring an end to consumer questions.

"This may be a completely safe product, but we don't have the information we need to make that

assessment," said Aaron Freeman, the policy director at Environmental Defence, the organization that led BPA opponents in Canada. "Our suggestion is that people use stainless steel."

A windfall for companies that make plastic free of BPA.



NOAH BERGER FOR THE NEW YORK TIMES

Sally McCoy, the chief of CamelBak, a sports bottle maker, switched plastics, even though the substitute costs more.