

Everyday Items, Complex Chemistry

By AMY SCHOENFELD

Holiday shoppers this season may still worry if the toys they buy contain lead after more than 10 million children's products were recalled this year for that reason.

But some scientists are urging consumers to focus on a different problem: the lack of hazard information on the thousands of chemicals in everyday products.

"We have enormous gaps in our understanding of how these chemicals affect health and the environment," said Michael P. Wilson, a public health scientist at the University of California, Berkeley. "And where we do have information, we see cause for concern."

The effects of human exposure to chemicals in consumer products are difficult to ascertain and are subject to dispute. As a result, there is a growing gap in the ways governments regulate chemicals. The European Union, Canada and California, for example, are restricting the use of some chemicals before the science on their hazards is absolutely clear; the federal government is not.

For retailers and manufactur-

Little is known on the effects of small daily exposure to common substances.

ers, conflicting requirements in the global marketplace pose a challenge. Companies have two choices: make products with potentially harmful ingredients for some countries and not others or meet the strictest standards in all markets. Increasingly companies are choosing to conform to the most restrictive rules rather than wait for any scientific consensus.

Scientists are just beginning to see how long-term exposure to chemicals affects humans throughout a lifetime. Studies by the Centers for Disease Control and Prevention show that traces of hundreds of chemicals flow through the blood and urine of humans, but the center cautions that their presence does not mean that they cause harm.

Scientific research shows that thousands of chemicals in consumer products have toxic effects, but many of these studies are focused on higher levels of exposure. Less is known about the low but regular doses from everyday products in the home, like emissions from furniture glues and the absorption of cosmetics through the skin.

Industry scientists and many federal regulators say these exposures are harmless. They say that they are going to great lengths to make sure products are safe for intended uses.

"The bottom line is that there isn't widespread evidence that exposure to consumer products is causing public health problems," said Mike Walls, director of government affairs at the American Chemistry Council.

The United States has held on to its original 30-year-old chemical regulatory systems, which make it difficult for agencies to ban chemicals or require industry testing. While the government has worked with the industry on a voluntary basis to study as many 2,000 chemicals and phase out certain ones, it has required the study of only 200 chemicals and restricted the use of only 5 since 1976.

But that approach is being challenged by some experts who say that risks remain and that action may be necessary even when the evidence is not clear-cut.

"There's this expectation that science can solve everything, but science can't ever meet these expectations," said Joel Tickner, director of the chemicals program at the Center for Sustainable Production at the University of Massachusetts, Lowell. "For some chemicals we may never be certain that they cause harm."

The European Union is following this precautionary approach. It recently adopted regulations that have allowed it to restrict hundreds of chemicals and require the industry to test most chemicals sold on the market.

Industry officials insist that the policies in Europe will exact a great economic cost. But many scientists, including some in government and the chemical industry, argue that Washington is taking the wrong path, allowing exposure to some products that are restricted in the European Union, Canada and even several American states.

Some retailers are working to avoid this double standard, choosing to adopt the restrictions of the European Union for products sold in the United States. And in some rare cases, companies are limiting certain chemicals even before Europe does.

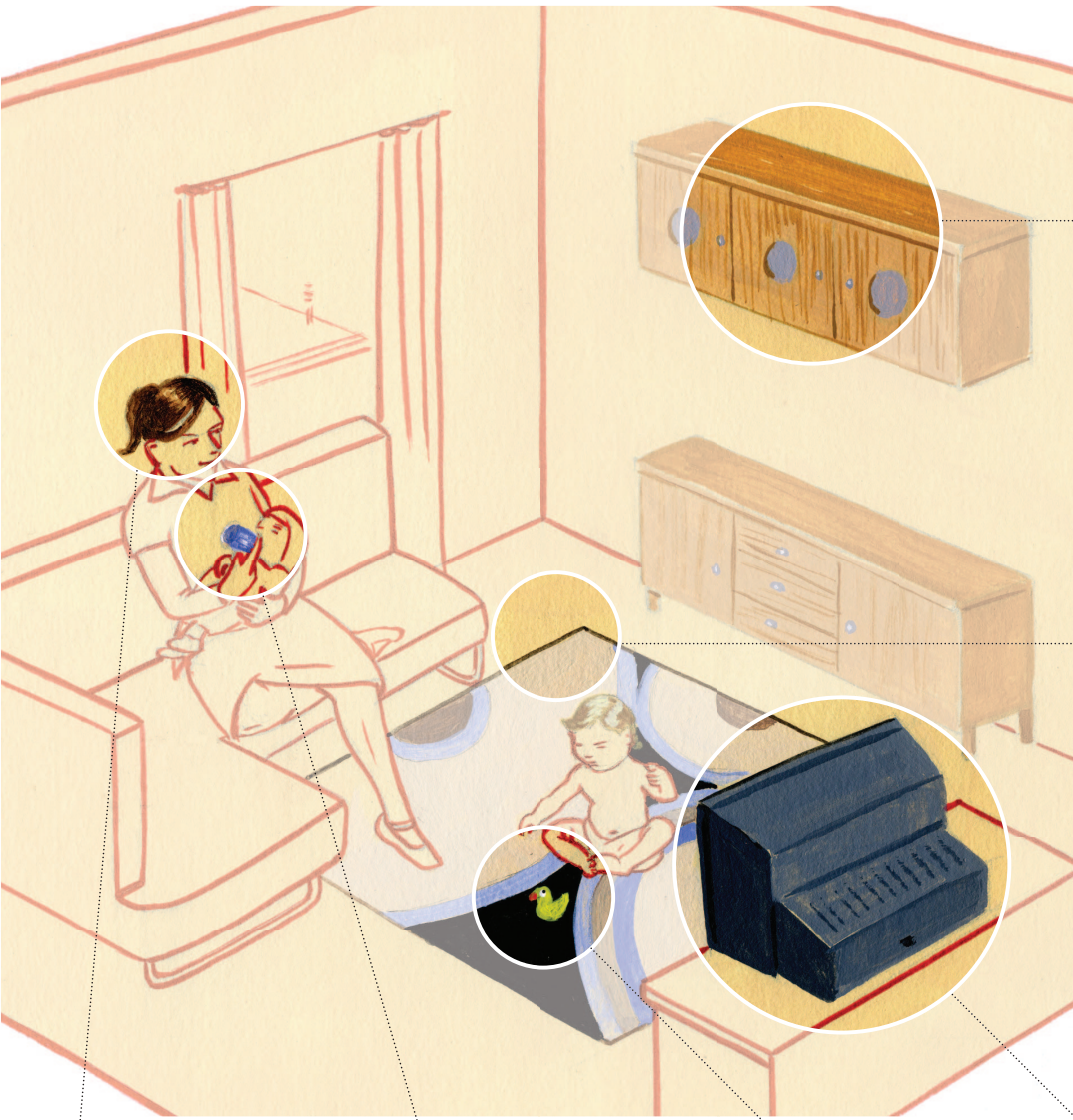
Dell is one of the few. The company is planning to phase out brominated flame retardants in the plastics of its products by 2009, including one known as deca that is restricted only in Sweden, Maine and Washington.

"We don't regionalize," said David Lear, the company's director of environmental affairs. "We are doing this because this is where our customers want us to go."

Chemical Rules

Here are six common products containing chemicals that are subject to conflicting rules around the nation and the world.

- **NONE** No restrictions or voluntary measures
- **VOLUNTARY** Voluntary phase-out with industry
- **RESTRICTED** Chemical restriction in place or planned



Lead in Hair Dyes

U.S.	CALIF.	E.U.	CANADA
●	●	●	●

INGREDIENT Lead acetate

FUNCTION Color additive in some hair dyes.

CONCERN A possible reproductive toxin, neurotoxin and carcinogen.

MIXED POLICIES This compound is approved in hair dyes by the United States at low levels; it is **banned in Europe, Canada and Argentina.**

Residue From Bottles

U.S.	CALIF.	E.U.	CANADA
●	●	●	●

INGREDIENT Bisphenol-A

FUNCTION Component of hard plastic and one of the highest volume chemicals produced.

CONCERN A possible hormone disruptor and reproductive toxin.

MIXED POLICIES San Francisco passed a law last year that would have banned it, but removed the restrictions after being sued by industry. **Ontario and some states are considering a ban.**

Residue From Toys

U.S.	CALIF.	E.U.	CANADA
●	●	●	●

INGREDIENT Phthalates

FUNCTION A family of chemicals used as a softener in vinyl plastics, ranging from toys to IV tubing. Bans are for toys.

CONCERN Possible carcinogen.

MIXED POLICIES California restricted six types in toys, adopting Europe's law. **Bans have passed in an additional 14 nations and are pending in at least six states and Canada.**

Fumes From Furniture

U.S.	CALIF.	E.U.	CANADA
●	●	●	●

INGREDIENT Formaldehyde

FUNCTION Ingredient in an inexpensive composite wood glue.

CONCERN Possible carcinogen.

MIXED POLICIES Some European countries, Japan and South Korea restrict emissions of formaldehyde from the glue. China restricts emissions of goods sold in the country, but manufacturers say China does not restrict them for export to the United States.

Residue From Rugs

U.S.	CALIF.	E.U.	CANADA
●	●	●	●

INGREDIENT Perfluorinated compounds

FUNCTION Stain resistance and nonstick surfacing.

CONCERN Possible carcinogen.

MIXED POLICIES One stain-resistance compound was phased out in the United States. This does not stop the import of products containing it. The European ban includes imports.

Flame Retardants

U.S.	CALIF.	E.U.	CANADA
●	●	●	●

INGREDIENT Brominated diphenyl ethers

FUNCTION Flame retardant.

CONCERN Possible hormone disruptor and developmental toxin.

MIXED POLICIES Two types, octa and penta, have been phased out in the United States and restricted in many countries. **A third known as deca, used in electronics, has been banned in Sweden, Maine and Washington.** Bans are pending in 11 states.

AMY SCHOENFELD/THE NEW YORK TIMES; ILLUSTRATION BY ARTHUR E. GIRON

After Recalls, Lead-Tainted Items Are Found in Quarantine, and on Shelves

From First Business Page

American companies face strict federal regulations for disposing of recalled toys, but they are only responsible for the toys that show up. The other products left out there — and in many cases, that is more than 80 percent — fall out of their purview, a crack in the recall system that consumer advocates say leaves a giant question mark over the trail of recalled toys.

Consumers are never told precisely how many products are returned, whether some are shipped abroad to be resold, or even which factory supplied the toys and whether companies are continuing to use that factory.

Executives at companies involved in recent recalls answered questions about their returned toys, but they were not eager to discuss the whereabouts of the toys that have not come back.

"If they're out of their control but they don't know where they are, I don't think the companies care," said Pamela Gilbert, a partner at the law firm of Cuneo Gilbert & LaDuca, and the former executive director of the Consumer Product Safety Commission.

Mattel and RC2, the maker of Thomas & Friends toys, are both holding onto the returned toys while they fight off lawsuits accusing them of harming children with those products. After the cases are resolved, Mattel says, it will try to recycle parts, like pieces of the Polly Pocket magnetic toys, safely into items like park benches.

Companies like Jo-Ann Stores, Tween Brands, and Toys "R" Us say they are holding the returned toys in warehouses until they come up with a disposal plan.

"It's not like it's a real threat, just sitting in our warehouse," said Robert Atkinson, a spokes-

man for Tween Brands. "It's not going to leach into the soil or anything like that."

The Environmental Protection Agency requires companies to test their returned products for an aggregate level of lead to determine a disposal plan. If the tests come in at higher than 5 parts per million, companies must take extra steps to make sure the lead will not contaminate the environment. If the average is under that level, the toys can go in normal landfills.

Mattel, for example, recently received test results back from Waste Management, which found that Mattel's mass of toys could be sent to regular landfills or recycled, rather than stored in toxic waste sites.

With the exception of RC2, which says it has received 60 percent of its Thomas toys back, most companies have not received many products back.

As of late November, buyers had returned just over 1,100 of the roughly 100,000 children's gar-

dening tools Jo-Ann Stores sold and recalled in October. And Kahoot Products, which recalled 1.6 million Cub Scout badges in early October, said it had not received any back nearly two months later — though some may be with Cub Scout leaders.

It has long been the case that product recalls generate dismal results. In the past, recalls have brought back 18 percent of products, on average, but low-priced toys and trinkets are returned at even lower rates — often less than 5 percent.

Research firms found that some toys recalled this summer have appeared this fall on auction Web sites like eBay and other sites that sell products in bulk to businesses, including Made-in-China.com. Aubrey Liu, who works in Made-in-China's Web operations department, said in an e-mail message that it was difficult for her department to pick out recalled products on her site because the Consumer Product Safety Commission does not include the names of manufacturers in recall notices.

Instead, the commission lists the importer or United States-based company that is distributing the product. The Web site has asked the commission for a list of the Chinese manufacturers behind the recalls, though it has not received it yet, Ms. Liu said.

There is no federal law or regulation against reselling recalled toys — a loophole that some legislators are trying to close. Still, eBay, among others, has agreed to try to keep recalled products off the market.

Companies are also allowed to export products they recalled to resell in other countries, if the recall was based on a voluntary standard.

Companies cannot export toys with lead paint, since it is banned on toys in the United States. But they can export lead jewelry and some of the metal trinkets that have been part of recent recalls. Companies must notify the product commission if they want to export such products.

Outside the United States, re-

called products still show up in some stores but it is difficult to know how they got there. In the past few weeks, a reporter for The New York Times in China bought three Mattel items that were supposed to be recalled from stores in Shanghai and at a Beijing shopping mall. The items — along with one other toy not purchased but on the shelves — all carried labels with product identification numbers that matched those on the recall list. The purchased toys included the Barbie Kitchen Gift Set and the Barbie and Tanner magnetic set.

Store clerks in China seem to be largely unaware of toy recalls and in one instance, a manager at the Shanghai shop, which carries a Fisher-Price label, insisted that the company's warehouse contained many of the recalled items and that they could still be purchased.

But a day later, after a reporter for The New York Times presented questions to Mattel's Shanghai representative about the recalled items, the store manager said the items were not available and repeatedly requested the return of another recalled item that was bought from the store.

A clerk at another store selling Fisher-Price toys said she would alter the date of manufacture on toys for customers to whatever dates they requested.

These products could have been on sale in China before the recall, or they might have come from factories there that did not want to destroy tainted products after the recall.

A spokeswoman for Mattel in the United States said that the toys appeared to be part of the recalls and must have come from a toy store's old inventory. Mattel, she said, was no longer distributing recalled toys anywhere in the world.

Adding to the confusion, some recalled toys are still on shelves in the United States. A Times reporter in Chicago found a Polly Pocket LimoScene toy on the shelves of a Wal-Mart there, but when she tried to buy it, the cash

register blocked the purchase. She found the toy still on the shelves in three later visits. Wal-Mart says the cash register is a backup to make sure recalled toys are not sold.

After Mattel recalled toys this fall, retailers shipped all of the affected lines back to the toy maker, Mattel said. Then, Mattel determined which toys were manufactured during the dates covered in the recall and isolated them. Mattel put stickers with new bar codes and product numbers on the other toys and sent them back to stores.

Shoppers today can buy Mattel products and peel stickers off them to see the product codes of recalled toys. Mattel says the toys with the stickers are safe.

Confusion and inaction on the trail of recalled toys.

Companies are also trying to get their suppliers in China to shoulder some of the recall costs. Toy World Group/Chun Tat Toys, for example, has agreed to pay the costs incurred by Toys "R" Us in the Elite Operations recall in October. But other American importers say they will come out of the process at a loss.

The Antioch Company in Ohio found the lead problem on parts of its bookmarks and journals when it ordered tests after seeing Mattel's recalls in August. Tom Rogers, the president of Antioch Publishing, a unit of the company, says he now wonders how many other companies ordered tests, found problems but then hid them rather than issuing a recall. Antioch will be burning the charms and clips on its products that contain excess lead.

"It's a painful process," Mr. Rogers said. "Nobody wants to produce a product that is unsafe. But nobody wants to see their business brought to its knees."



GREG SAILOR FOR THE NEW YORK TIMES

Brian Wilson tossed items with lead into a drum at Antioch Publishing in Ohio. The company will burn the parts with lead.

Louise Story reported from New York and David Barboza from China. Katie Zezima contributed reporting from Boston; Karen Ann Cullotta from Chicago; and Christopher Maag from Columbus, Ohio.