

Why Lead in Toy Paint? It's Cheaper



Ryan Pyle for The New York Times

Factory workers making toys in Dongguan, China. Trains made in the area for the Thomas & Friends line were recalled in June.

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Published: September 11, 2007

SHANGHAI, Sept. 7 — When [Mattel](#), the world's largest toy maker, announced its third recall in six weeks this month, the company asked consumers to return toys because they contained dangerously high levels of lead paint.

Toxic paint also turned up in several other products Mattel recalled in recent weeks, and in about 16 other recalls this year, including the popular Thomas & Friends train sets, according to the United States [Consumer Product Safety Commission](#).

All the products were made in China.

Why is lead paint — or lead, for that matter — turning up in so many recalls involving Chinese-made goods?

The simplest answer, experts and toy companies in China say, is price. Paint with higher levels of lead often sells for a third of the cost of paint with low levels. So Chinese factory owners, trying to eke out profits in an intensely competitive and poorly regulated market, sometimes cut corners and use the cheaper leaded paint.

On the books, China's paint standards are stricter than those in the United States, requiring that paint intended for household or consumer-product use contain no more than 90 parts of lead per million. By comparison, American regulations allow up to 600 parts per million.

The regulations are supposed to safeguard health, particularly in cases involving children, where ingesting excessive amounts of lead has been linked to disorders including mental retardation and behavioral problems.

But enforcement of the regulations in China is lax.

"The standard doesn't matter," said Scott Clark, a professor of environmental health at the [University of Cincinnati](#). "Remember, in the Soviet Union during the cold war, they had very high standards on the books, but they never enforced them. It was just for show."

Dr. Clark and a team of investigators sampled paint supplies in Shanghai and other parts of China in recent years, and in some 26 percent of the cases, they said, the paint met neither American nor Chinese standards.

Even goods at high-end shopping malls in Shanghai contained unacceptable levels of lead.

But Mr. Clark said that China was not alone in producing such tainted goods. "We also looked at India, Malaysia and Singapore," he said, "and only Singapore met the requirements."

The General Administration of Quality Supervision, Inspection and Quarantine in China — which has some oversight authority over paint regulation — did not respond to questions about the prevalence of lead paint and about the inspection regimen.

But some Chinese toy makers were more forthcoming. They acknowledged that they use paint with high levels of lead; others said they knew of other companies that did — sometimes because lead paint is cheaper, sometimes because it is easier to apply to hard surfaces and to produce richer color.

Ms. Zhang, a sales manager at Big Tree Toys, a company in Shantou in southern China, who did not want her first name used, said leaded paint was about 30 percent cheaper than paint without lead. She noted that some countries, in the Middle East, for instance, did not restrict lead content.

But Ms. Zhang insisted that if her company used leaded paint, it disclosed that.

"It depends on the client's requirement," she said. "If the prices they offer make it impossible to use lead-free paint, we'll tell them that we might have to use leaded paint. If they agree, we'll use leaded paint. It totally depends on what the clients want."

Chen Tao, sales manager at the Chenghai Guangxin Plastic Toys Factory, also in Shantou, said his plant did not use lead paint at all. But he added that Chinese regulators were essentially absent.

“There is a national standard on the lead level in toys,” he said. “But no one really enforces it. Factories can pick whatever paint they want.”

Another problem is the abundant supply of industrial paint in China, used on buildings, bridges and cars as well as sidewalks and other outdoor surfaces.

Several paint companies said the government had no formal standard on lead in industrial paint.

As a result, a lot of cheap industrial paint may be finding its way into toy factories and even households.

While the United States still allows paint with higher levels of lead to be used outdoors and in many industrial settings, paint with high lead content is slowly being phased out of even industrial use, experts say, partly because it can pose dangers to work crews who apply or remove it.

Lead paint is not the only problem in China. Lead is increasingly turning up in children’s jewelry, for instance.

Last year, there were about a dozen recalls in the United States of Chinese-made jewelry because of excessive lead levels. In the first eight months of this year — possibly because of heightened regulatory scrutiny — there were 22 lead-related recalls of children’s jewelry, 21 of them of products made in China.

Of roughly 39 lead-related recalls this year, 38 were of Chinese-made goods, according to the Consumer Product Safety Commission.

Research conducted by scientists at Ashland University in Ohio, suggests that some of the jewelry may contain lead recycled from electronic waste shipped from the United States to China.

“The jewelry is inexpensive,” said Jeffrey Weidenhamer, a professor of chemistry at Ashland and author of several studies on the sources of lead in children’s jewelry, “and so it’s likely scrap metal is used as a source of some of the stuff.”

Researchers at Ashland say they have randomly tested plastic toys and found high lead levels, mostly in products that have not yet been recalled.

In addition to importing waste containing lead, there are quantities of lead already here. China is the world’s largest miner and producer of lead, much of it going into battery production, according to the

[United States Geological Survey](#), which estimates that Chinese lead mining is up 50 percent since 2001.

Accordingly, China's lead poses perhaps the greatest risk to the Chinese themselves, and their environment.

Chinese children are using toys that are less likely to be inspected than those going to American store shelves, and less likely to be subject to the same sort of recall system as in the United States.

More fundamentally, scientists say heavy exposure to lead in the environment has serious health effects. It can linger in the air, leach into water supplies and crops, and coat surfaces outdoors. It is those dangers that have led much of the world to move away from leaded paint and gasoline.

Factories here often fail to provide adequate safety protection equipment to workers handling hazardous materials.

And while factory conditions are improving, partly with the help of unannounced audits by Western companies, many experts say there are simply too many small factories to patrol. A lot of these are obscure subcontractors of larger Chinese manufacturers supplying Western toy makers.

Yet a recent study by Canadian professors found that while lead paint is a growing problem with Chinese toy suppliers, the vast majority of American toy recalls are caused by the toy maker's own design flaws.

Still, after the spate of recalls, American toy makers and other companies are saying that the Chinese suppliers violated their contracts.

Many Chinese business executives in turn complain about the enormous pressures that Western companies place on suppliers to continually lower costs, which they say inevitably leads desperate or greedy businesspeople to cheat in a country with poor regulation.

As worrisome, some experts say that the high levels of lead being found in toys are most likely not a new phenomenon.

"I think it's probably been there for a while and we're just becoming aware of it," Mr. Weidenhamer of Ashland University said.