



# A Call for Toxic-Free Children's Products

New York City  
December 2015



A  
report  
by



**CLEAN &  
HEALTHY  
NEW YORK**



# Acknowledgements

A Call for Toxic-Free Children's Products: New York City was produced by Clean and Healthy New York, Center for Environmental Health, and WE ACT for Environmental Justice.

Product testing was conducted by Bobbi Chase Wilding, MS, Clean and Healthy New York.

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# Executive Summary

Children's products containing toxic chemicals are for sale in New York City. These chemicals are dangerous, unnecessary, and pose health risks to children. They can cause cancer, trigger asthma, lower IQ, and damage vital organs.

This report, produced by Clean and Healthy New York, Center for Environmental Health and WE ACT for Environmental Justice, documents our project to purchase, in the five boroughs of New York City, products intended to be used by children on a daily basis and test them for the presence of some of the most hazardous chemicals. What we found should be troubling to all, especially parents and those who make policy in New York City.

In 2014, manufacturers of children's products reported over 11,000 uses of toxic chemicals to the Washington State Department of the Ecology. In the same year, the Maine Department of Environmental Protection received reports from multiple manufacturers of children's products about the use of BPA, arsenic, cadmium and mercury in products marketed to or intended for use by children.

New York City and New York State currently have no laws that require manufacturers to disclose the use of or ban many toxic chemicals in children's products. This report's findings clearly highlight the fact that some of the most dangerous chemicals are indeed in children's products on the store shelves in New York City. In this holiday season, parents and others need to know what is in the products they could be buying for kids.

We visited Jack's World, Macy's, Regine's, Shopper's World, Target, Toys"R"Us and several 99 cents stores in boroughs across New York City in June and September 2015 and tested a variety of toys, accessories, novelty products and apparel. Products were tested using a High Definition X-Ray Fluorescence Analyzer (HD-XRF). This analyzer has been determined by the United States Consumer Product Safety Commission to have accuracy comparable to laboratory testing, and is accepted for determining compliance with the federal Consumer Product Safety Improvement Act.

Not all products tested contained chemicals of concern; this report documents the ones that did. We found:

- Arsenic in two products: shoes and a lunch box,
- Antimony in five products: clothing, a necklace, an accessory, a purse and a doll,
- Cadmium in two products: a pencil holder school supply and an accessory,
- Cobalt in jewelry and accessories,
- Lead in four products: jewelry, accessories, and footwear.

This survey report, while not exhaustive, demonstrates that there are toxic heavy metals in a variety of children's products sold at discount retailers, mid-priced big-box stores as well as high-end department stores. We know that there are thousands of such products because of self-reporting data from children's products makers; this report shows that they are present on store shelves in New York City.

There is a wealth of growing scientific evidence linking chemicals in commonly-used children's products to diseases and disorders of environmental origin. The incidence of these health impacts is on the rise. Children are uniquely vulnerable because they eat, drink and breathe more — pound for pound — than adults, put their hands and objects in their mouths more often, and are undergoing developmental stages that are sensitive to disruption from toxic chemicals.

New York legislators should protect children from toxic chemicals by banning their use in toys and children's products. Makers of children's products should not allow toxic chemicals in their products, and retailers should refrain from selling children's products containing toxic chemicals.

# Introduction

Non-toxic products occupy store shelves right next to those that contain toxic chemicals. There is no way a parent or anyone shopping can tell by looking at them, reading the label or visiting the company website which ones are safe and which ones contain hidden hazards. Even the most knowledgeable parents can't protect their families.

Children and babies are exposed all day, every day to toxic chemicals in products made for their use. Their rapidly developing brains and growing bodies are more susceptible to the health impacts of these hidden hazards. Parents can't get the information they need to shop their way out of this problem. Stronger laws are needed to adequately protect our children.

Some states have taken action. The Children's Product Safety Act of 2008 in Washington State requires children's product makers selling products in the state to disclose the use of dangerous chemicals. This disclosure has shed light on the fact that dangerous chemicals are in thousands of

products intended for everyday use by children and babies. Maine passed a similar law in 2008, which was amended in 2011, and they are now also collecting data on use of chemicals in products. Vermont and Oregon followed suit in 2014 and 2015 respectively.

The results of testing in New York City show that the problem is not just local to Washington State, but widespread. Children's products containing lead, cadmium, arsenic, and other highly dangerous chemicals were easily found on store shelves in each of the New York City stores surveyed.

If we fail to address this silent public health and environmental epidemic, exposure to toxic children's products today can cause lifelong harm to many children in our community. Members of the New York City Council should act now to ban the most dangerous toxic threats so parents will know that the toys they buy are safe. Children and babies in New York City can't wait any longer.

## The Science: Toxic Chemicals Cause Health Problems

Toxic chemicals in household products contribute to the rise in diseases. They are linked to cancer, learning disorders, genetic anomalies, hyperactivity, developmental delays, asthma, obesity and infertility.

The rates of childhood cancers have been trending upward in the last four decades. Childhood leukemia increased by 40% and brain cancer increased by 39% since 1973.<sup>1</sup> This increase in cancer incidence occurred during a period marked by the rising use of a wide range of industrial chemicals. In 2012, childhood cancer was the second leading cause of death (after accidents) among New York's children from age 5 to age 15.<sup>2</sup> Childhood cancer survivors go on to have chronic health issues including second cancers, heart damage, osteoporosis and thyroid problems.

As the 2008-09 President's Cancer Panel stated, "the true burden of environmentally induced cancer has been grossly

underestimated. With over 80,000 chemicals on the market in the United States, many of which are in products used by millions of Americans in their daily lives and are unstudied and largely unregulated, exposures to potential environmental carcinogens is widespread."<sup>3</sup>

Asthma incidence and mortality have more than doubled since 1991. In New York City, the rates of asthma hospitalizations for children 0-4 years tops out at 69.3 per 10,000 and for those ages 5 -14 years the rate is 36 per 10,000. While the science on what causes asthma is not conclusive, we do know what triggers asthma and chemicals play a role.<sup>4</sup>

In fact, according to the Society of Toxicology, "*Even in lower concentrations, many chemicals are irritants and will trigger symptoms in asthmatics that have twitchy hyperresponsive airways.*"<sup>5</sup> In all, 28% of developmental disorders



are due to direct toxic environmental exposure, or combinations of exposures with genetic susceptibility.<sup>6</sup> Genetics loads the gun, environment pulls the trigger.

Toxics in household products disproportionately impact children and babies. Babies' and children's growth needs cause them to consume more than double the food and water and breathe more air proportionally than adults. Infants typically double in weight by five months of age and triple by one year. This rapid growth makes the developing organs, especially the brain, highly vulnerable to toxic exposures. Hand-to-mouth behavior of young children also puts them at increased risk. They spend time on the ground, causing them to breathe in dust and particles that contain toxic chemicals. They also put everything in their mouths, greatly increasing the likelihood that they will ingest dangerous chemicals as they come out of products. Children's immature metabolism makes them less able to break down and excrete toxic chemicals.<sup>7</sup>

Toxic chemicals are added to products that are found in virtually every home and on store shelves throughout this country. Products that children use every day contain toxic chemicals. Each and every day, children and babies are at risk of developing chronic and debilitating illnesses due to unnecessary, preventable exposure to toxic chemicals.

Current regulations are inadequate to protect our children, our families, our communities and the environment. The Toxic Substances Control Act of 1976, the Consumer Products Safety Act of 1972, and the Consumer Product Safety Improvement Act of 2008 have allowed for very limited regulation of chemicals. But as the data in this report shows, current protections do not keep toxic chemicals out of children's products. Diseases of environmental origin are preventable, and eliminating exposure to environmental hazards is the best defense against them. Efforts to remove toxic exposure have been successful in the past. The removal of lead from gasoline resulted in a 90% reduction in blood lead levels in American children; decreased use of alcohol during pregnancy has greatly reduced the number of babies born with fetal alcohol syndrome. Although cancer is caused by a complex interaction of genetic predisposition and exposure to environmental factors, we do know that reducing exposure to known carcinogens will result in a reduction in the incidences of cancer.

Further, the reduction of the use of neurotoxins will reduce the incidence of lowered IQ and learning disabilities. It's also logical that reducing the use of reproductive toxicants will reduce the incidence of infertility. Reducing the use of asthmagens will reduce the incidence of asthma, as well as the number, frequency and severity of asthma attacks.

## The Problem

In 2008, the State of Washington passed the Children's Safe Products Act which requires makers of children's products sold in Washington to report to the state if these products contain any of a list of 66 Chemicals of High Concern to Children. This landmark legislation has opened a window, documenting the presence of previously hidden hazards in children's products including clothes, car seats, bedding, tableware and toys. Washington State's children's product database shows 11,223 uses of toxic chemicals in children's products as reported in 2014 alone.<sup>8</sup>

In November 2015, Washington State released children's products testing conducted in 2014 and 2015. They found antimony in 72% of children's products tested, lead in 48%, cobalt in 38%, arsenic in 34%, cadmium in 14%, and mercury in 8%.<sup>9</sup>

What does that mean for New York's children? Survey reports in New York counties from Erie to Suffolk identified toxic chemicals in a wide array of children's items.

# Results: NYC Stores Sell Toxic Children's Products

Clean and Healthy New York tested products purchased at stores across New York City, including Jack's, Macy's, Regine's, Shopper's World, Target, Toys"R"Us and several 99 cents stores. Products were tested using a High Definition X-Ray Fluorescence Analyzer (XRF), which can detect elements like lead, mercury, chlorine and bromine. We identify twelve product with harmful chemicals.

- **Arsenic** in two items: shoes, and a lunch box;
- **Antimony** in five items: clothing, a necklace, an accessory, a purse, and a doll;
- **Cadmium** in two items: a pencil holder school supply and an accessory;
- **Cobalt** in six items: jewelry and accessories;
- **Lead** in four items: jewelry, accessories, and footwear.

Digimon Study Set—Pencil Case



Cadmium

Best Show in Town—Key Chain



Lead

Pink Crush Sandals—Rhinstones



Antimony, Cobalt, Lead

I ♥ NY Bag



Lead

Carter's Shirt and Overalls



Cobalt, Lead

Friendship "S" Keychain



Antimony, Cadmium, Cobalt,

Cars Lunch Box



Arsenic, Lead

Hello Kitty Necklace



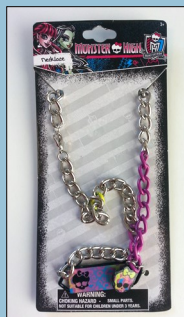
Antimony, Cobalt, Lead

My Look DIY Jewelry Kit



Cobalt, Lead

Monster High Necklace



Arsenic, Lead

Minions Dracula Doll



Antimony

Chattie's Sandals



Antimony, Arsenic

# Summary & Recommendations

Our testing shows that these products are not just sold far away — they are on store shelves right here in New York City.

A handful of major retailers have told their suppliers that they will no longer accept products that contain some chemicals of concern to human health and the environment. But it is clear from the results of our survey that voluntary efforts alone are not enough to get toxic chemicals out of children's products.

A comprehensive federal law to reform the nation's chemical policy has been stalled for a decade. Even if this law were enacted, it could be another decade before it regulates a single chemical. In this absence of Federal action, 33 states considered or enacted policies in 2014 to address toxic chemicals in consumer products.

In New York State, a law to ban the most highly toxic chemicals and require disclosure of a more comprehensive list of others has passed in the Assembly several times but stalled in the State Senate. In 2015, 42 state senators co-sponsored the Child Safe Products Act — many more than it needed to pass — but Senate leadership blocked its passage in the final days of the session. Counties have already taken the lead, passing laws to ban toxic chemicals in Albany, Rockland, Suffolk, and Westchester counties.

## We make the following recommendations:

### ***New York City should protect children from toxic chemicals by banning their use in children's products.***

The City Council has legislation pending that would tackle the chemicals included in this report, protecting millions of children from the dangers posed by heavy metals. New York City should join the four counties that have already acted in leading efforts to remove toxics from children's products.

### ***New York State should protect children from toxic chemicals by banning their use in children's products.***

The New York State legislature should address the issue of toxic toys in children's products in the upcoming legislative session. During the past several years, a comprehensive children's products policy has gotten more traction than ever before and is ready for passage in 2016.

### ***Toy and children's product manufacturers should stop using toxic chemicals in their products.***

Many of the toys and products we tested did not contain toxic chemicals harmful to children. Since children's products can be made without them, we call upon manufacturers to stop using them. This requires manufacturers to take better control of their supply chain to ensure that the products they offer for sale do not contain potentially harmful substances.

### ***Retailers should refuse to sell children's products containing toxic chemicals.***

Retailers should ensure that products on their shelves are free of toxic chemicals. Major retailers and those that specialize in baby products should lead the way by making sure their products do not contain them. Retailers can learn how through the Getting Ready for Baby Campaign, ([www.gettingready4baby.org](http://www.gettingready4baby.org)), which works with retailers to urge their suppliers to stop using hazardous chemicals in infants and toddler's products.

# Appendix 1: Detailed Results

All quantities are reported in parts per million (ppm). \* indicates that lead level, including confidence range, could violate federal law.

#	Product	Part	Store	Antimony	Arsenic	Cadmium	Cobalt	Lead
1	Chatties Sandals	Rhinestone	Regine's	538	253			
2	Pink Crush Sandals	Rhinestone	Shopper's World	3434			1,236	108,042
3	Digimon Pencil Case	Plastic material	7 Trading			661		
4	Best Show in Town Bats and Ball Keychain	Red paint on ball	7 Trading	61				4,147
5	Hello Kitty Bowtie Necklace	Metal	Jack's				760	
5		Rhinestone		1,064				74,231
6	Carter's Baby Collection—Shirt & Overalls	Button face	Macy's				13,711	
6		Painted snap face					2,559	78.9*
7	Cars Lunchbox	White interior	Regine's		227			85.9*
8	Minions Dracula Doll	Body	Toys"R"Us	208				
9	Monster High Necklace	Dark pink coating	K-Mart		60.5			80.5*
9		Bright pink coating			247			76*
9		Yellow coating		442	47.3		1,400	
9		Bare metal link					2,457	
10	I ♥ NY bag	Zipper pull	Jack's	56.9				17,961
11	S Keychain	Rhinestone	Target	2051			506	
11		Metal back				80.3		
12	My Look jewelry kit	Key charm	Target					164
12		Metal bracelet					2,135	169
12		Silver bracelet						194
12		Flower charm—back						244
12		Brass bracelet					1,915	204

**Total number of items containing chemical of concern**

**5**

**3**

**2**

**6**

**8**



## Appendix 2: Methodology

During the summer and fall of 2015, the authors of this report visited a number of stores in New York City and purchased over a dozen children's products. Clean and Healthy New York staff then screened the children's products thoroughly in their office, using an Innov-X X-Ray Fluorescence Analyzer (XRF). We then used an XOS High Definition X-Ray Fluorescence Analyzer (HD XRF) to verify our results. Quantities of heavy metals presented in this report were determined using HD-XRF.

Sampling was not random: We found no chemicals of concern. We only include chemical results when the chemical information from Washington State's database as our guide<sup>8</sup>, along with extensive past experience in testing products in New York State. This report is not a systematic survey of any product type, brand, or store. We do not report products in which al was found at or above the following levels, codified by the Toxic Free Toys Act passed in Suffolk County in 2015.

- Cadmium: 75 parts per million (ppm);
- Arsenic, antimony, cobalt and mercury: 40 ppm;
- Lead: 90 ppm in surface coating, 100 ppm base material.

These levels are based on protective standards set in the U.S. and globally. We have included three items with lead concentrations just below the current legal threshold. In those cases, the confidence levels (presented as a range) are large enough that the items could, in fact, be in violation; further testing would be needed.

### About the XRF Analyzer

The High Definition X-Ray Fluorescence Analyzer (HD XRF) is one produced by XOS, based in East Greenbush, NY. XRFs are used by government agencies and product manufacturers to screen consumer products for toxic chemicals. XRFs can detect elements such as lead, cadmium, chlorine, arsenic, mercury, cobalt, and antimony, as low as the level of parts per million. The HD XRF has been determined to be comparable to laboratory testing by the Consumer Product Safety Commission for determining compliance with the federal Consumer Product Safety Improvement Act.<sup>10</sup>

## Footnotes

1. Landrigan, et al (2013) *New York State's Children and the Environment, A Report from the Children's Environmental Health Center*, Icahn School of Medicine at Mount Sinai. [www.mountsinai.org/static\\_files/MSMC/Files/Patient%20Care/Children/Childrens%20Environmental%20Health%20Center/NYS-Children-Environment.pdf](http://www.mountsinai.org/static_files/MSMC/Files/Patient%20Care/Children/Childrens%20Environmental%20Health%20Center/NYS-Children-Environment.pdf)
2. See above.
3. Reuben, SH, (2010) "2008-09 Annual Report Reducing Environmental Cancer Risk: What We Can Do, Now." The President's Cancer Panel. [deainfo.nci.nih.gov/advisory/pcp/annualReports/pcp08-09rpt/PCP\\_Report\\_08-09\\_508.pdf](http://deainfo.nci.nih.gov/advisory/pcp/annualReports/pcp08-09rpt/PCP_Report_08-09_508.pdf)
4. New York City Department of Health and Mental Hygiene. NYC Tracking Program: Environmental and Health Data Portal Asthma. Emergency Room Visits for Children 0 - 4 years old. [nyc.gov/health/tracking](http://nyc.gov/health/tracking)
5. Society of Toxicology, (2015) "Tox Topic: Can All Those Chemicals Be Causing My Asthma?" [www.toxicology.org/pubs/docs/pr/](http://www.toxicology.org/pubs/docs/pr/)

[ToxTopics/TT1\\_Asthma.pdf#search=%22](#)

6. See footnote 1.
7. See footnote 1.
8. State of Washington, Department of Ecology, (2015) Children's Safe Product Act Database. [www.ecy.wa.gov/programs/hwtr/RTT/cspa/search.html](http://www.ecy.wa.gov/programs/hwtr/RTT/cspa/search.html)
9. Washington State Department of Ecology (2015) "Chemicals of High Concern to Children in Children's Clothing, Footwear, and Accessories." [fortress.wa.gov/ecy/publications/documents/1503039.pdf](http://fortress.wa.gov/ecy/publications/documents/1503039.pdf)
10. Consumer Product Safety Committee. (2015) "Study on the Applicability of X-ray Fluorescence Spectrometry for Use in ASTM F963 Total Element Screening." [www.cpsc.gov/PageFiles/181483/Lead-in-Paint-Measure-April2015.pdf](http://www.cpsc.gov/PageFiles/181483/Lead-in-Paint-Measure-April2015.pdf)

All websites accessed 12/15/2015

# A Call for Toxic-Free Children's Products

New York City  
December 2015

The logo for Clean & Healthy New York features the words "CLEAN & HEALTHY" in a bold, dark green sans-serif font, with "NEW YORK" in a slightly smaller, bold, dark green sans-serif font below it. The ampersand is a lighter shade of green.

CHNY advances policy and market changes to promote safer chemicals, a sustainable economy, and a healthier world.

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CEH protects people from toxic chemicals by working with communities, consumers, workers, government, and the private sector to demand and support business practices that are safe for public health and the environment.



WEACT builds healthy communities by assuring that people of color and/or low-income participate meaningfully in the creation of sound and fair environmental health and protection policies and practices.