



# The Poisonwood



# Rivals



*a report on the dangers of touching  
arsenic treated wood*

## Acknowledgements

This report was authored by Renee Sharp, Bill Walker, Richard Wiles, Jane Houlihan, and Sean Gray of the Environmental Working Group and Paul Bogart of Healthy Building Network. HBN thanks The Institute for Local Self Reliance and Forest Ethics for their institutional support. This report was made possible by grants from the Richard and Rhoda Goldman Fund, The Turner Foundation, the W. Alton Jones Foundation, The John Merck Fund and the New York Community Trust.

Copyright © November 2001 by Environmental Working Group. All rights reserved. Manufactured in the United States of America. *Printed on recycled paper.*

### The following individuals and groups participated in the nationwide sampling program that is the subject of this report:

Sparky Anderson and Bill Blome  
Clean Water Action  
Austin Texas  
(sampled stores in Houston area)

Rebecca McNichol and Julia Krall  
Clean Water Action  
Philadelphia, Pennsylvania

Carmi McLean  
Clean Water Action  
Denver, Colorado

Laura Visger  
Clean Water Action  
Detroit, Michigan

Brooke Marjamaa and Patience Caso  
Clean Water Action  
Minneapolis, Minnesota

Rochelle Davis and Ken Rolling  
Generation Green  
Evanston, Illinois  
(sampled stores in Chicago area)

Renee Sharp  
Environmental Working Group  
Oakland, California  
(sampled stores in San Francisco area)

Paul Bogart and Laurie Valeriano  
Healthy Building Network and Washington  
Toxics Coalition  
Seattle, Washington

Elizabeth Saunders  
Clean Water Action  
Boston, Massachusetts

Shawnacy Leonard and Daniel Munksgaard  
Lincoln, Nebraska  
(sampled stores in Omaha area)

Bryony Schwan and Alexandra Gorman  
Women's Voices for the Earth  
Missoula, Montana

Sean Gray and Ben Crandall  
Environmental Working Group  
Tricia McPherson and Hilda Amacker  
Clean Water Action  
Washington, DC

Scott Jackson  
Clean Water Fund  
Asheville, North Carolina

**Environmental Working Group.** The Environmental Working Group (EWG) is a nonprofit environmental research organization based in Washington, D.C. Through analysis of government and private sector databases, environmental monitoring programs, and scientifically grounded research, EWG develops high-profile publications, computer databases and Internet resources that consistently create public awareness and concern about high priority environmental problems and solutions.

Kenneth A. Cook, President  
Richard Wiles, Senior Vice President  
Mike Casey, Vice President for Public Affairs

Anne Keys, Vice President for Policy  
Bill Walker, California Director

**Healthy Building Network.** The Healthy Building Network advocates the use of safer, ecologically superior building materials as a means to a healthier indoor environment and global environmental preservation.

Bill Walsh, National Coordinator

Paul Bogart, Arsenic Campaign Coordinator

**Copies of this report** may be ordered for \$25.00 each (plus 6% sales tax or \$1.50 for Washington, DC residents) and \$3.00 for postage and handling. Payment must accompany all orders. Please make checks payable to Environmental Working Group:

Environmental Working Group  
1718 Connecticut Avenue, N.W. Suite 600  
Washington, D.C. 20009  
(202) 667-6982 (phone)  
(202) 232-2592 (fax)

# Executive Summary

Nationwide sampling by a coalition of public interest groups\* found dangerous levels of arsenic on the surface of “pressure treated” wood purchased at The Home Depot and Lowe’s Home Improvement Warehouse. These twin giants of the home improvement industry aggressively promote their concern for the environment, but they stack their shelves with highly hazardous lumber infused with the arsenic-containing pesticide CCA.

Arsenic treated lumber is used to build more than 90 percent of all outdoor wooden structures in the United States. The standard formulation of CCA used in wood is 22 percent arsenic. In our national testing program unsafe amounts of arsenic were easily wiped off the surface of all treated wood purchased from Home Depot and Lowe’s stores in 13 metro areas.

Measured amounts ranged from 18 to 1,020 micrograms ( $\mu\text{g}$ ) on a 100 square centimeter ( $\text{cm}^2$ ) surface, about the size of a single handprint of an average four-year-old child. This is considerably more arsenic than the Environmental Protection Agency’s (EPA’s) proposed 10  $\mu\text{g}$  per day allowable exposure level for arsenic in drinking water.\*\* Based on these data and the results of numerous government and academic studies, we estimate that one out of every 500 children who regularly play on swing sets and decks made from arsenic treated wood, or one child in an average size elementary school, will develop lung or bladder cancer later in life as a result of these exposures (EWG 2001).

Arsenic sticks to children’s hands when they play on treated wood, and is absorbed through the skin and ingested when they put their hands in their mouths. Our test was designed to mimic a small child’s hand coming into routine contact with the wood surface, and involves swiping the wood with a slightly moistened polyester wipe, then testing the wipe for arsenic.

Arsenic treated lumber can significantly compound risks from arsenic contaminated drinking water. In its latest examination of arsenic toxicity,

---

\* *Clean Water Action/Clean Water Fund, Clean Water Fund of North Carolina, Environmental Working Group, Generation Green, Healthy Building Network, Washington Toxics Coalition, and Women’s Voices for the Earth*

\*\**EPA proposed drinking water allows up to 10 micrograms of arsenic per liter of water. In the U.S. the average adult consumes one liter of water per day (EPA 2000), which equates to an allowable daily intake of 10 micrograms of arsenic for an average adult.*

**Arsenic sticks to children’s hands when they play on treated wood, and is absorbed through the skin and ingested when they put their hands in their mouths.**

**We estimate that one out of every 500 children who regularly play on swing sets and decks made from arsenic treated wood, or one child in an average size elementary school, will develop lung or bladder cancer later in life as a result of these exposures.**

**All other uses of arsenic as a pesticide are banned by the EPA. But under a special federal exemption, millions of pounds of CCA a year are injected into wood that is then sold to families all across the country.**

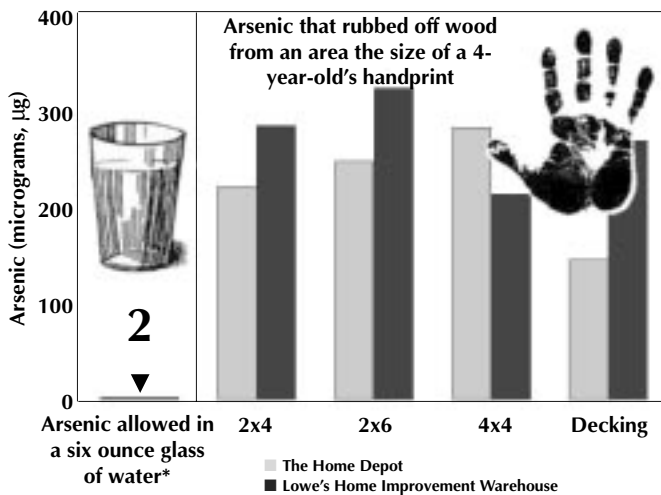
the National Academy of Sciences' (NASs') National Research Council found that long-term arsenic exposures at EPA's proposed 10 micrograms a day translate into a 1 in 300 risk of lung or bladder cancer (NRC 2001). On average, our samplers easily wiped 25 times this amount (247 micrograms of arsenic) off the surface of arsenic treated lumber from Home Depot or Lowe's, in an area the size of a four-year-old's hand. (Figure 1, Table 1, and Table 2).

Arsenic is a known human carcinogen that has come under increasing regulatory scrutiny in the past year. In January 2001, the Bush Administration delayed more protective regulations for arsenic in drinking water pending another in a long series of reviews of arsenic toxicity by the National Research Council (NRC). In its new 2001 review, the NRC found that the most recent studies show arsenic to be even more toxic than previously thought (NRC 2001). The Consumer Product Safety Commission is conducting a formal review of the safety of arsenic treated wood for children's play structures, and the EPA is in the midst of an expedited review of the cancer risks that arsenic treated wood presents to children.

In an effort to fend off a ban on CCA, Home Depot and Lowes worked closely with the treated wood manufacturers to win EPA approval of a new, voluntary consumer information program. Citizens in this testing program purchased arsenic treated wood at 13 Home Depot's and 5 Lowes retail outlets in 13 states and not a single individual was offered any safety information. Even if they had been, the information from these retailers says nothing about the risk to the public and particularly children who routinely

contact structures made with arsenic treated wood. Retailers claim that their consumer information sheets will be more prominently displayed beginning this fall.

**Figure 1. Average arsenic levels found on arsenic treated lumber in 13 metro areas across the United States.**



\* At EPA's new proposed standard for arsenic in drinking water (10 µg/L) there are 2 µg of arsenic in a 6 ounce glass of water.

Source: Environmental Working Group. Compiled from EWG and HBN test data results.

**How dangerous is arsenic?**

Arsenic is on EPA's very short list of chemicals known without question to cause cancer in humans. The National Academy of Sciences (NAS) and its National Research Council, which have now produced seven reports addressing arsenic, have concluded multiple times that arsenic causes lung, bladder, and skin cancer in humans, and may also cause other cancers including kidney, prostate, and nasal passage cancer. NAS and EPA's Science Advisory Board (SAB) also have concluded that arsenic may cause high blood pressure, cardiovascular disease, and diabetes.

**Table 1. Testing results from The Home Depot and Lowe’s Home Improvement Warehouse in 13 metro areas across the United States.**

	Average arsenic that rubbed off of wood from an area the size of a 4-year-old’s handprint* (micrograms, µg)		
Wood tested	The Home Depot, 13 stores	Lowe's Home Improvement Warehouse, 5 stores	Range for all 18 stores
<b>2x4</b> Decks and playsets – posts, rail caps, benches	219	282	(36-1020)
<b>4x4</b> Support posts for decks and playsets	245	321	(33-680)
<b>2x6</b> Picnic tables tops, some playsets and deck rail caps	280	211	(24-785)
<b>Decking</b> Most common wood for deck surfaces (5/4" x 6")	144	267	(18-540)

\* Size of a single handprint of a 4-yr old is about 100 cm<sup>2</sup>, calculated as one-quarter of the surface area of the hands, based on EPA body surface area data (EPA 1997)

Source: Environmental Working Group. Compiled from EWG test data results.

All other uses of arsenic as a pesticide are banned by the EPA. But under a special federal exemption, millions of pounds of CCA a year are injected into wood that is then sold to families all across the country. CCA is not only poisonous to pests, but also to children. This study confirms the findings of virtually all research conducted in the past 15 years, which shows that significant amounts of arsenic are found on the surface of pressure treated wood and that this arsenic is readily rubbed onto clothes and skin. As our own report Poisoned Playground shows (EWG and HBN 2001), unsafe levels of arsenic remain on the surface of arsenic treated wood after more than 15 years of outdoor exposure and use.

### **Hypocrisy of Home Depot and Lowe’s**

This year the wood treatment industry acknowledged the failure of its voluntary consumer information program, and blamed retailers like Home Depot and Lowe’s for failing to properly inform customers about the risks of arsenic treated wood. In response to growing concerns about the hazards of arsenic treated wood, the wood treatment industry announced changes to the program. These changes fail to address the the two fundamental flaws in the program.

**This year the wood treatment industry acknowledged the failure of its voluntary consumer information program.**

First, the program relies on voluntary efforts of thousands of home improvement retail stores to educate their staff nationwide on the content of the program and to ensure that the safety information is passed out to each and every customer who purchases the wood. According to both the wood industry and EPA, a similar program initiated in 1986 completely failed. During our retail sampling program, none of 18 stores tested offered our samplers any consumer information on arsenic treated lumber.

Second, the “safe” handling information on the consumer sheets advises those building with and sawing the wood to wear face masks and gloves, but provides no precautions whatsoever to protect children who often play or even eat on the arsenic treated wood surfaces, sometimes beginning the very minute construction is finished.

The safety information on the consumer information sheets stands in stark contrast to the detailed safety information provided to workers in the chemical industry and wood treatment industry who handle the arsenic wood preservative CCA in the workplace. Under the federal Occupational Safety and Health Act of 1970, these workers are provided health and safety information in a lengthy document called the Material Safety Data Sheet, or MSDS. Among the warnings on the MSDS for CCA are:

- 2.5 ounces of treated wood dust ingested by a small child may be life threatening
- Avoid frequent or prolonged contact with the skin.
- This product should not come in contact with food or feed.

Instead, at many Home Depot and Lowe’s, customers can take home “CCA FACTS,” a full-color promotional brochure from a leading arsenic chemical manufacturer (Osiose Wood Preserving Inc) declaring:

USE IT FOR GARDENS  
USE IT FOR PLAYGROUNDS  
USE IT FOR WATERING TROUGHS  
CCA TREATED WOOD IS NOT HAZARDOUS

One of the Home Depot stores visited by a tester in Grand Rapids, Michigan displayed a giant sign declaring “CCA Treated Lumber is Safe!”, yet a recent Home Depot circular pushed plastic fencing as an “environmentally friendly” alternative with “no arsenic, creosote, etc. which can be harmful to children and animals.” (see Figure 3, page 37). These competing, misleading and inherently conflicting advertisements leave children at risk.

## Recommendations

- Arsenic treated lumber is unsafe, particularly for children, and The Home Depot, Lowe’s Home Improvement Warehouse, and all other retailers should stop selling it. These retailers, many of whom tout their environmental responsibility, continue to sell a product that exposes American families to high levels of arsenic, a known carcinogen.
- We urge consumers to demand alternatives when they visit their local home improvement centers. Safe alternatives are plentiful, from wood treated with less toxic preservatives, to cedar which resists rotting naturally, to other materials like recycled plastics or metal.
- EPA must ban arsenic-containing pesticides for sale as a wood treatment pesticide, and the CPSC must ban all consumer products made with wood preserved with arsenic-containing pesticides.
- Homeowners should replace their arsenic treated decks, swing sets and picnic tables with safe alternatives. If the structures are not replaced, homeowners should seal the wood at least once a year. Anyone who contacts arsenic treated wood should wash their hands afterwards, particularly before eating. Children’s toys should not be stored under decks, because arsenic leaches off the wood when it rains and could coat the toys. Parents and pet owners should keep children and animals away from the dirt beneath and immediately surrounding arsenic treated wood structures. Arsenic treated picnic tables should be avoided, but if used should be covered with a table cloth.

**HOME TESTING**

To test your deck, play set, or other outdoor wooden structure for arsenic, order an inexpensive, simple home test kit at either:

[www.ewg.org](http://www.ewg.org)  
 or  
[www.healthybuilding.net](http://www.healthybuilding.net)

**Table 2. Risks from arsenic-treated wood can significantly compound risks from contaminated drinking water.**

What	Arsenic concentration	Daily dose	Dose based on...	How many cases of bladder or lung cancer?
Water	<b>10 micrograms</b> per liter of water - EPA's proposed drinking water standard (equates to 2 micrograms in a child-sized 6-ounce glass of water)	4.5 micrograms - child's daily dose  10 micrograms - adult's daily dose	Average U.S. water consumption for a child ages 1 to 10 - 0.45 liters per day  Average U.S. water consumption for an adult - one liter per day	1 in 300 people (NRC 2001)
Wood	Between <b>1020 micrograms</b> and 18 micrograms (average of 247) easily wiped from a surface of arsenic treated wood the size of a child's handprint	EPA and CPSC are currently calculating a child's dose of arsenic from contact with arsenic treated wood	Length of play time on the wood, how often a child puts their fingers in the mouth, among other things	For children who regularly play on the wood, we estimate that one child in every grade school will develop bladder or lung cancer later in life.

# City by city results

*“I wouldn’t use it, but it’s what we sell.”*

Salesperson responding to inquiries about the wisdom of using CCA-treated wood for kid’s playstructures – Summer 2001

In the summer and fall of 2001, public interest groups in 13 metropolitan areas (Table 3) purchased arsenic treated lumber at Home Depot and Lowe’s and then tested the surface of the wood for arsenic.

The method for testing involved rubbing a 100 cm<sup>2</sup> surface of the wood with a polyester wipe, similar to a baby wipe, slightly moistened with distilled water, and then testing the wipe for arsenic. All samplers were sent a test kit by EWG containing a 100 cm<sup>2</sup> cutout template, wipes, distilled water, shipping materials, and instructions. Most testers purchased a 2x4, 2x6, 4x4, and decking (5/4 x 6) and typically completed the sampling in the parking lot of the store. Wipes were then mailed to EWG, which in turn sent them to a government-certified lab for analysis. All boards were wiped in two locations, so that the numbers presented in this report represent an average for those two wipes.

There is no standardized testing protocol for assessing exposure to arsenic from contact with arsenic treated lumber. The method used in this program, however, is similar to methods used by various state health agencies, which have relied on wipe samples, hand swipe samples in which rinseate from hands is tested for arsenic, or wipe samples collected by attaching a wipe to the bottom of a weight and then dragging the weight back and forth across an arsenic-treated board. The method is described in detail in the appendix.

The results for each city are presented in Table 3 and Figure 2. They represent a reasonable range of arsenic levels that a consumer would encounter by purchasing and using arsenic treated wood.

Arsenic causes cancer in humans. In 1984, all other uses of arsenic as a pesticide were banned, leaving CCA as the last arsenic based pesticide allowed for any use in the United States. The levels of arsenic found at all test locations present serious increased cancer risks for children and anyone who comes into routine contact with the wood. Children are at greater risk, however, because relative to their size they receive a much higher dose, because they are more likely to come into direct contact with the wood,

and because they are far more likely to ingest the arsenic that is present on their hands when they play on arsenic treated surfaces.

### Arsenic treated wood is unsafe by any measure

The area we sampled on a board surface – 100 cm<sup>2</sup> – is roughly equal to the size of a single handprint of an average four-year-old – 106 cm<sup>2</sup>. The lowest level detected in our survey, 18 µg /100 cm<sup>2</sup> on a piece of decking from a Boston Home Depot, had nine times the arsenic on this small handprint that one would find in a 6 ounce glass of water contaminated at the maximum level allowed by the World Health Organization. The board with the highest levels, a 2x4 from a Lowe’s in Asheville, North Carolina had more than 500 times the arsenic in a glass of water deemed safe by WHO (Figure 2). On average, one handprint of exposure from the four board sizes tested exceeded the amount in a 6-ounce glass of contaminated water by 85 to 130 fold (Figure 2).

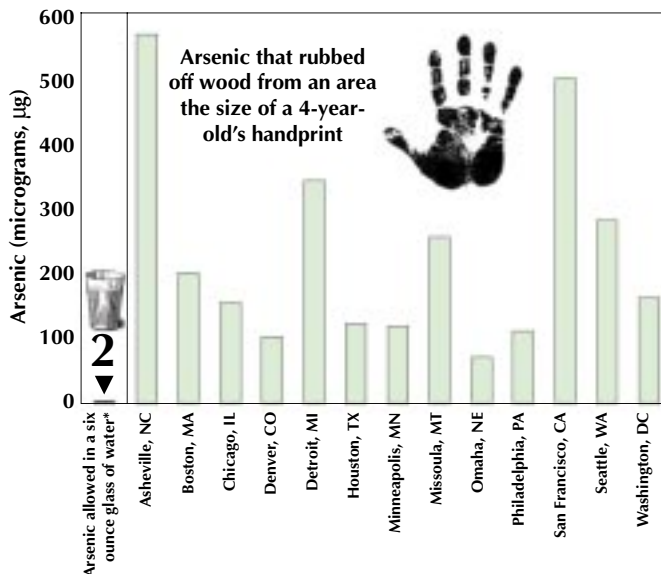
**Table 3. Testing results from The Home Depot and Lowe’s Home Improvement Warehouse in 13 metro areas across the United States.**

Wood Tested		2x4	4x4	2x6	Decking	All Woods
Arsenic that rubbed off of wood from an area the size of a 4-year old’s handprint* (µg)						
<b>Asheville, NC</b>	Home Depot	655	224	570	339	447 (224 - 655)
	Lowe's	1020	680	520	540	690 (520 - 1020)
<b>Boston, MA</b>	Home Depot	585	89	110	18	201 (18 - 585)
<b>Chicago, IL</b>	Home Depot	50	215	282	72	155 (50 - 282)
<b>Denver, CO</b>	Home Depot	103	N/A	N/A	N/A	103 (103 - 103)
<b>Detroit, MI</b>	Home Depot	251	241	785	100	344 (100 - 785)
<b>Houston, TX</b>	Home Depot	123	239	116	131	152 (116 - 239)
	Lowe's	61	182	52	70	91 (52 - 182)
<b>Minneapolis, MN</b>	Home Depot	154	54	94	175	119 (54 - 175)
<b>Missoula, MT</b>	Home Depot	N/A	361	200	206.5	256 (200 - 361)
<b>Omaha, NE</b>	Home Depot	60	48	79	97	71 (48 - 97)
<b>Philadelphia, PA</b>	Home Depot	36	33	76	27	43 (27 - 76)
	Lowe's	78	218	24	390	178 (24 - 390)
<b>San Francisco, CA</b>	Home Depot	243	575	685	N/A	501 (243 - 685)
<b>Seattle, WA</b>	Home Depot	307	620	256	65	312 (65 - 620)
	Lowe's	131	380	252	N/A	254 (131 - 380)
<b>Washington, DC</b>	Home Depot	60	242	104	348	189 (60 - 348)
	Lowe's	118	145	209	67	135 (67 - 209)
<b>National Average</b>		<b>237</b>	<b>267</b>	<b>260</b>	<b>176</b>	<b>247</b>
<b>National Range</b>		<b>36 - 1020</b>	<b>33 - 680</b>	<b>24 - 785</b>	<b>18 - 540</b>	<b>18-1020</b>

\*Size of a single handprint of a 4-year-old is about 100 cm<sup>2</sup>, calculated as one-quarter of the surface area of the hands, based on body surface area data (EPA 1997).

N/A – wood or test result not available.

**Figure 2. Average arsenic levels found on arsenic treated lumber in 13 metro areas across the United States**



\* At EPA's new proposed standard for arsenic in drinking water (10 µg/L) there are 2 µg of arsenic in a 6 ounce glass of water.

Source: Environmental Working Group. Compiled from EWG and HBN test data results.

**On average, one handprint of exposure from the four board sizes tested exceeded the amount in a 6-ounce glass of contaminated water by 85 to 130 fold.**

children playing on arsenic treated wood would touch a larger area than this, and particularly in the summer could be rubbing or touching the wood with both hands and the bare skin of their arms and legs, day after day.

On October 31, 2001, EPA proposed to lower the allowable limit of arsenic in drinking water to 10 µg per liter of water. One in every 300 people exposed to this level day after day would be expected to develop lung or bladder cancer (NRC 2001). For an average child, who drinks 0.45 liters of water daily (EPA 2000), EPA's new safety standard translates into a daily dose of **4.5 µg of arsenic**. In contrast, arsenic treated wood from Home Depot and Lowe's had average surface contamination levels of **174 to 263 µg of arsenic** in an area the size of a single handprint of a four-year-old. It is easy to see how a child playing on structures made of wood could easily ingest more than EPA's proposed safe daily dose (Table 2, page 5). Exposures at these levels mean that about one child at every grade school would be expected to develop cancer later in life because of routinely touching arsenic treated wood on playgrounds and at home.

These test results strongly support a ban on arsenic treated lumber. It is virtually impossible for anyone to purchase CCA treated lumber and not expose themselves and their family to unsafe levels of arsenic over the life of the wood. While the arsenic levels measured in this survey may decline after several months, the steady state levels of arsenic on aged wood ensure that people coming in contact with the wood can receive high doses of arsenic over the entire life of the product.

EPA's working assumption is that a child's hand and a wipe would rub off the same amount of arsenic from a given area of an arsenic treated board (EPA 2001). Data from the wood industry show that adult hands can in some cases pick up more arsenic than a wipe (SCS 2001). The single study that has focused on loadings to children's hands measured arsenic in rinse solution from the hands of a 20-month-old child (MEDOH 1998). After a play period of less than 10 minutes, the child had rubbed 55 µg of arsenic from the wood with one hand, and 22 µg with the other. After a second play period, also less than 10 minutes, the child had rubbed 49 µg of arsenic from the wood with the single hand tested. In general, children's hands are often sweaty and sticky, which would increase the amount of arsenic that would stick to the skin.

The levels of arsenic on this toddler's hands are consistent with the results of our wipe samples, although the wipe samples may tend to underestimate children's potential exposures because of the small sampling area, a handprint sized area of the wood. Obviously, most chil-

# Arsenic-treated lumber testing results from The Home Depot and Lowe's Home Improvement Warehouse Retail Testing Program

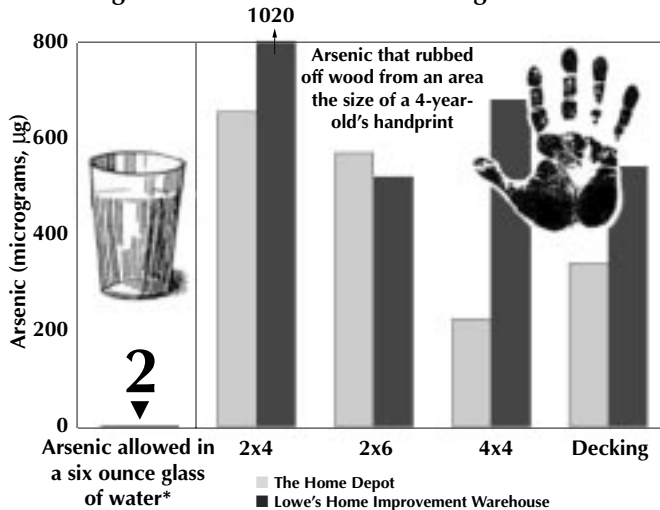
## Arsenic in Lumber – Asheville, NC

### Arsenic in lumber from Home Depot and Lowe's in Asheville, NC

Go to any Home Depot or Lowe's and you will find aisle after aisle stacked floor to ceiling with insect resistant lumber soaked in arsenic. This wood is sold to homeowners and contractors who use it to build patios, decks, furniture, swing sets, picnic tables, and other outdoor structures. Scores of studies now show that arsenic from the wood rubs off onto hands and clothes, and that children can get especially high doses of arsenic because of the simple fact that they play on the wood and then put their hands in their mouths much more often than an average adult. Some toddlers mouth the wood, and other children get arsenic laced wood splinters embedded in their hands. As an acute poison and powerful carcinogen, arsenic is banned for all other pesticide uses, but wood treatment has a special exemption under federal law.

A nationwide investigation of stores in 13 U.S. cities by a coalition of U.S. public interest groups<sup>†</sup> found that Home Depot and Lowe's sell millions of board feet of "pressure treated" (arsenic treated) wood that exposes children to harmful levels of arsenic. In spite of their much ballyhooed consumer education program, Home Depot and Lowe's fail to warn parents about the dangers of arsenic in the wood they sell.

**Figure 1: An area the size of a four-year-old's handprint has enough arsenic to contaminate 500 glasses of water.**



**Table 1: Testing results from Home Depot and Lowe's Home Improvement Warehouse in Asheville.**

	The Home Depot	Lowe's Home Improvement Warehouse	Range in 13 Cities
<b>Wood tested</b>	Arsenic that rubbed off of wood from an area the size of a 4-year old's handprint* (µg)		
<b>2x4</b> Decks and playsets – posts, rail caps, benches	655	1020	(36-1020)
<b>4x4</b> Support posts for decks and playsets	224	680	(33-680)
<b>2x6</b> Picnic tables tops, some playsets and deck rail caps	570	520	(24-785)
<b>Decking</b> Most common wood for deck surfaces (5/4" x 6")	339	540	(18-540)

\*Size of a single handprint of a 4-year-old is about 100 cm<sup>2</sup>, calculated as one-quarter of the surface area of the hands, based on EPA body surface area data  
N/A – wood or test result not available

Clean Water Fund in Asheville tested four standard types of wood at Home Depot and Lowe's, and found high amounts of arsenic on the surface of the wood. The maximum amount that rubbed off was 1020 micrograms from an area the size of the palm of a four year old. This is equivalent to the arsenic in more than 500 child-sized glasses of water (six ounces each) polluted up to the maximum arsenic contamination level allowed under Environmental Protection Agency's (EPA) new proposed drinking water standard (10 micrograms of arsenic per liter of water).

### How dangerous is arsenic?

Arsenic is on EPA's very short list of chemicals known without question to cause cancer in humans. The National Academy of Sciences (NAS) and its National Research Council, which have now produced seven reports addressing arsenic, have concluded multiple times that arsenic causes lung, bladder, and skin cancer in humans, and may also cause other cancers including kidney, prostate, and nasal passage cancer. NAS and EPA's Science Advisory Board (SAB) also have concluded that arsenic may cause high blood pressure, cardiovascular disease, and diabetes.

\* At EPA's new proposed standard for arsenic in drinking water (10 µg/L), there are 2 µg of arsenic in a 6 ounce glass of water

† Clean Water Action/Clean Water Fund, Clean Water Fund of North Carolina, Environmental Working Group, Generation Green, Healthy Building Network, Washington Toxics Coalition, and Women's Voices for the Earth

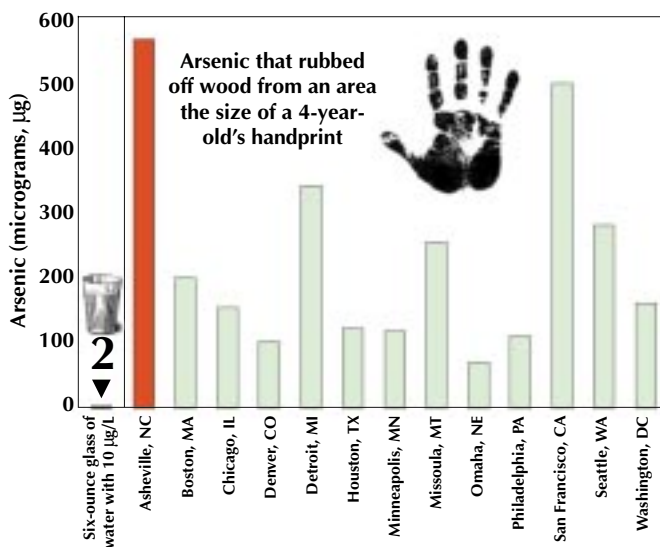
**Table 2: Testing results from The Home Depot and Lowe's Home Improvement Warehouse in 13 cities across the United States.**

Wood Tested		2x4	4x4	2x6	Decking	All Woods
Arsenic that rubbed off of wood from an area the size of a 4-year old's handprint* (µg)						
Asheville, NC	Home Depot	655	224	570	339	447 (224 - 655)
	Lowe's	1020	680	520	540	690 (520 - 1020)
Boston, MA	Home Depot	585	89	110	18	201 (18 - 585)
Chicago, IL	Home Depot	50	215	282	72	155 (50 - 282)
Denver, CO	Home Depot	103	N/A	N/A	N/A	103 (103 - 103)
Detroit, MI	Home Depot	251	241	785	100	344 (100 - 785)
Houston, TX	Home Depot	123	239	116	131	152 (116 - 239)
	Lowe's	61	182	52	70	91 (52 - 182)
Minneapolis, MN	Home Depot	154	54	94	175	119 (54 - 175)
Missoula, MT	Home Depot	N/A	361	200	206.5	256 (200 - 361)
Omaha, NE	Home Depot	60	48	79	97	71 (48 - 97)
Philadelphia, PA	Home Depot	36	33	76	27	43 (27 - 76)
	Lowe's	78	218	24	390	178 (24 - 390)
San Francisco, CA	Home Depot	243	575	685	N/A	501 (243 - 685)
Seattle, WA	Home Depot	307	620	256	65	312 (65 - 620)
	Lowe's	131	380	252	N/A	254 (131 - 380)
Washington, DC	Home Depot	60	242	104	348	189 (60 - 348)
	Lowe's	118	145	209	67	135 (67 - 209)
<b>National Average</b>		<b>237</b>	<b>267</b>	<b>260</b>	<b>176</b>	<b>247</b>
<b>National Range</b>		<b>36 - 1020</b>	<b>33 - 680</b>	<b>24 - 785</b>	<b>18 - 540</b>	<b>18-1020</b>

\*Size of a single handprint of a 4-year-old is about 100 cm<sup>2</sup>, calculated as one-quarter of the surface area of the hands, based on EPA body surface area data  
N/A – wood or test result not available

Arsenic treated lumber could significantly compound risks from arsenic contaminated drinking water. In its latest examination of arsenic toxicity, the National Academy of Sciences' (NASS') National Research Council found that long-term arsenic exposures at EPA's proposed 10 micrograms a day translate into a 1 in 300 risk of lung or bladder cancer (NRC 2001). On average, our samplers easily wiped 25 times this amount (247 micrograms of arsenic) off the surface of arsenic treated lumber from Home Depot or Lowe's,

**Figure 2: Average arsenic levels found on arsenic treated lumber in 13 U.S. cities.**



**Sampler swipes arsenic treated wood as part of the national retail testing program.**

in an area the size of a four-year-old's hand. For children who regularly play on swing sets and decks made from arsenic treated wood, an equivalent of about one child in every grade school would develop lung or bladder cancer later in life.

### Store Locations

Asheville testers purchased lumber at these stores:

The Home Depot  
127 Acton Circle  
Asheville, NC 28806

Lowe's Home Improvement Warehouse  
105 Smokey Park Highway  
Asheville NC 28806

# Arsenic-treated lumber testing results from The Home Depot and Lowe's Home Improvement Warehouse Retail Testing Program

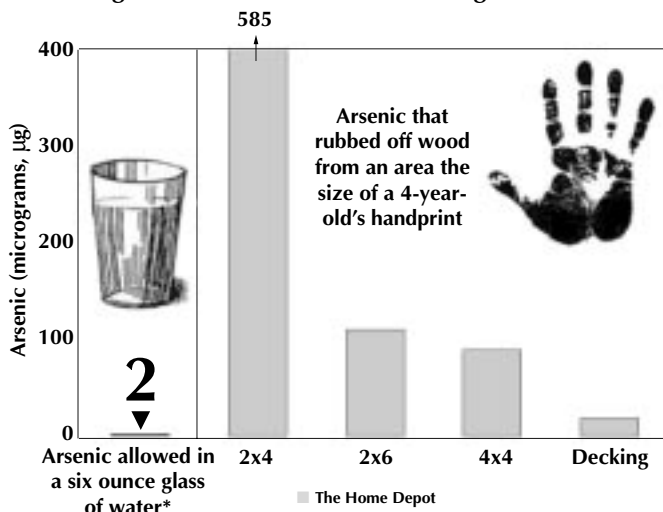
## Arsenic in Lumber – Boston, MA

### Arsenic in lumber from Home Depot in Boston, MA

Go to any Home Depot or Lowe's and you will find aisle after aisle stacked floor to ceiling with insect resistant lumber soaked in arsenic. This wood is sold to homeowners and contractors who use it to build patios, decks, furniture, swing sets, picnic tables, and other outdoor structures. Scores of studies now show that arsenic from the wood rubs off onto hands and clothes, and that children can get especially high doses of arsenic because of the simple fact that they play on the wood and then put their hands in their mouths much more often than an average adult. Some toddlers mouth the wood, and other children get arsenic laced wood splinters embedded in their hands. As an acute poison and powerful carcinogen, arsenic is banned for all other pesticide uses, but wood treatment has a special exemption under federal law.

A nationwide investigation of stores in 13 U.S. cities by a coalition of U.S. public interest groups<sup>†</sup> found that Home Depot and Lowe's sell millions of board feet of "pressure treated" (arsenic treated) wood that exposes children to harmful levels of arsenic. In spite of their much ballyhooed consumer education program, Home Depot and Lowe's fail to warn parents about the dangers of arsenic in the wood they sell.

**Figure 1: An area the size of a four-year-old's handprint has enough arsenic to contaminate 250 glasses of water.**



**Table 1: Testing results from Home Depot in Boston.**

	The Home Depot	Range in 13 Cities
<b>Wood tested</b>	Arsenic that rubbed off of wood from an area the size of a 4-year old's handprint* (µg)	
<b>2x4</b> Decks and playsets – posts, rail caps, benches	585	(36-1020)
<b>4x4</b> Support posts for decks and playsets	89	(33-680)
<b>2x6</b> Picnic tables tops, some playsets and deck rail caps	110	(24-785)
<b>Decking</b> Most common wood for deck surfaces (5/4" x 6")	18	(18-540)

*\*Size of a single handprint of a 4-year-old is about 100 cm<sup>2</sup>, calculated as one-quarter of the surface area of the hands, based on EPA body surface area data  
N/A – wood or test result not available*

Clean Water Action in Boston tested four standard types of wood at Home Depot, and found high amounts of arsenic on the surface of the wood. The maximum amount that rubbed off was 585 micrograms from an area the size of the palm of a four year old. This is equivalent to the arsenic in more than 250 child-sized glasses of water (six ounces each) polluted up to the maximum arsenic contamination level allowed under Environmental Protection Agency's (EPA) new proposed drinking water standard (10 micrograms of arsenic per liter of water).

### How dangerous is arsenic?

Arsenic is on EPA's very short list of chemicals known without question to cause cancer in humans. The National Academy of Sciences (NAS) and its National Research Council, which have now produced seven reports addressing arsenic, have concluded multiple times that arsenic causes lung, bladder, and skin cancer in humans, and may also cause other cancers including kidney, prostate, and nasal passage cancer. NAS and EPA's Science Advisory Board (SAB) also have concluded that arsenic may cause high blood pressure, cardiovascular disease, and diabetes.

*\* At EPA's new proposed standard for arsenic in drinking water (10 µg/L), there are 2 µg of arsenic in a 6 ounce glass of water*

*† Clean Water Action/Clean Water Fund, Clean Water Fund of North Carolina, Environmental Working Group, Generation Green, Healthy Building Network, Washington Toxics Coalition, and Women's Voices for the Earth*

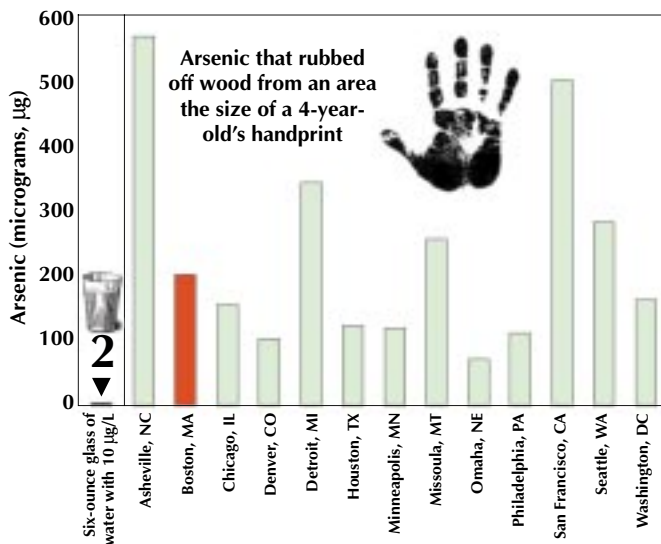
**Table 2: Testing results from The Home Depot and Lowe's Home Improvement Warehouse in 13 cities across the United States.**

Wood Tested		2x4	4x4	2x6	Decking	All Woods
Arsenic that rubbed off of wood from an area the size of a 4-year old's handprint* (µg)						
Asheville, NC	Home Depot	655	224	570	339	447 (224 - 655)
	Lowe's	1020	680	520	540	690 (520 - 1020)
Boston, MA	Home Depot	585	89	110	18	201 (18 - 585)
Chicago, IL	Home Depot	50	215	282	72	155 (50 - 282)
Denver, CO	Home Depot	103	N/A	N/A	N/A	103 (103 - 103)
Detroit, MI	Home Depot	251	241	785	100	344 (100 - 785)
Houston, TX	Home Depot	123	239	116	131	152 (116 - 239)
	Lowe's	61	182	52	70	91 (52 - 182)
Minneapolis, MN	Home Depot	154	54	94	175	119 (54 - 175)
Missoula, MT	Home Depot	N/A	361	200	206.5	256 (200 - 361)
Omaha, NE	Home Depot	60	48	79	97	71 (48 - 97)
Philadelphia, PA	Home Depot	36	33	76	27	43 (27 - 76)
	Lowe's	78	218	24	390	178 (24 - 390)
San Francisco, CA	Home Depot	243	575	685	N/A	501 (243 - 685)
Seattle, WA	Home Depot	307	620	256	65	312 (65 - 620)
	Lowe's	131	380	252	N/A	254 (131 - 380)
Washington, DC	Home Depot	60	242	104	348	189 (60 - 348)
	Lowe's	118	145	209	67	135 (67 - 209)
<b>National Average</b>		<b>237</b>	<b>267</b>	<b>260</b>	<b>176</b>	<b>247</b>
<b>National Range</b>		<b>36 - 1020</b>	<b>33 - 680</b>	<b>24 - 785</b>	<b>18 - 540</b>	<b>18-1020</b>

\*Size of a single handprint of a 4-year-old is about 100 cm<sup>2</sup>, calculated as one-quarter of the surface area of the hands, based on EPA body surface area data  
N/A – wood or test result not available

Arsenic treated lumber could significantly compound risks from arsenic contaminated drinking water. In its latest examination of arsenic toxicity, the National Academy of Sciences' (NAS's) National Research Council found that long-term arsenic exposures at EPA's proposed 10 micrograms a day translate into a 1 in 300 risk of lung or bladder cancer (NRC 2001). On average, our samplers easily wiped 25 times this amount (247 micrograms of arsenic) off the surface of arsenic treated lumber from Home Depot or Lowe's,

**Figure 2: Average arsenic levels found on arsenic treated lumber in 13 U.S. cities.**



**Sampler swipes arsenic treated wood as part of the national retail testing program.**

in an area the size of a four-year-old's hand. For children who regularly play on swing sets and decks made from arsenic treated wood, an equivalent of about one child in every grade school would develop lung or bladder cancer later in life.

### Store Locations

Boston testers purchased lumber at:

The Home Depot South Bay Center  
5 Allstate Rd  
Boston, MA 02125

**Arsenic-treated lumber testing results from  
The Home Depot and Lowe's Home Improvement  
Warehouse Retail Testing Program**

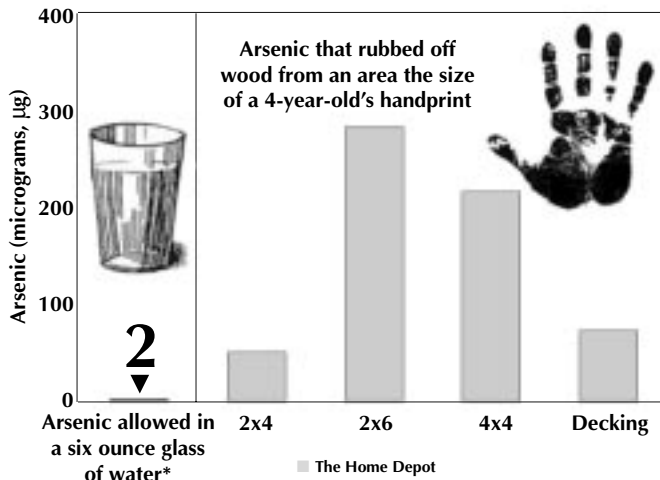
# Arsenic in Lumber – Chicago, IL

## Arsenic in lumber from Home Depot in Chicago

Go to any Home Depot or Lowe's and you will find aisle after aisle stacked floor to ceiling with insect resistant lumber soaked in arsenic. This wood is sold to homeowners and contractors who use it to build patios, decks, furniture, swing sets, picnic tables, and other outdoor structures. Scores of studies now show that arsenic from the wood rubs off onto hands and clothes, and that children can get especially high doses of arsenic because of the simple fact that they play on the wood and then put their hands in their mouths much more often than an average adult. Some toddlers mouth the wood, and other children get arsenic laced wood splinters embedded in their hands. As an acute poison and powerful carcinogen, arsenic is banned for all other pesticide uses, but wood treatment has a special exemption under federal law.

A nationwide investigation of stores in 13 U.S. cities by a coalition of U.S. public interest groups<sup>†</sup> found that Home Depot and Lowe's sell millions of board feet of "pressure treated" (arsenic treated) wood that exposes children to harmful levels of arsenic. In spite of their much ballyhooed consumer education program, Home Depot and Lowe's fail to warn parents about the dangers of arsenic in the wood they sell.

**Figure 1: An area the size of a four-year-old's handprint has enough arsenic to contaminate 140 glasses of water.**



**Table 1: Testing results from Home Depot in Chicago.**

Wood tested	The Home Depot	Range in 13 Cities
2x4 Decks and playsets – posts, rail caps, benches	50	(36-1020)
4x4 Support posts for decks and playsets	215	(33-680)
2x6 Picnic tables tops, some playsets and deck rail caps	282	(24-785)
Decking Most common wood for deck surfaces (5/4" x 6")	72	(18-540)

*\*Size of a single handprint of a 4-year-old is about 100 cm<sup>2</sup>, calculated as one-quarter of the surface area of the hands, based on EPA body surface area data  
N/A – wood or test result not available*

Generation Green in Chicago tested four standard types of wood at Home Depot, and found high amounts of arsenic on the surface of the wood. The maximum amount that rubbed off was 282 micrograms from an area the size of the palm of a four year old. This is equivalent to the arsenic in more than 140 child-sized glasses of water (six ounces each) polluted up to the maximum arsenic contamination level allowed under Environmental Protection Agency's (EPA) new proposed drinking water standard (10 micrograms of arsenic per liter of water).

## How dangerous is arsenic?

Arsenic is on EPA's very short list of chemicals known without question to cause cancer in humans. The National Academy of Sciences (NAS) and its National Research Council, which have now produced seven reports addressing arsenic, have concluded multiple times that arsenic causes lung, bladder, and skin cancer in humans, and may also cause other cancers including kidney, prostate, and nasal passage cancer. NAS and EPA's Science Advisory Board (SAB) also have concluded that arsenic may cause high blood pressure, cardiovascular disease, and diabetes.

*\* At EPA's new proposed standard for arsenic in drinking water (10 µg/L), there are 2 µg of arsenic in a 6 ounce glass of water*

*† Clean Water Action/Clean Water Fund, Clean Water Fund of North Carolina, Environmental Working Group, Generation Green, Healthy Building Network, Washington Toxics Coalition, and Women's Voices for the Earth*

**Table 2: Testing results from The Home Depot and Lowe's Home Improvement Warehouse in 13 cities across the United States.**

Wood Tested		2x4	4x4	2x6	Decking	All Woods
Arsenic that rubbed off of wood from an area the size of a 4-year old's handprint* (µg)						
Asheville, NC	Home Depot	655	224	570	339	447 (224 - 655)
	Lowe's	1020	680	520	540	690 (520 - 1020)
Boston, MA	Home Depot	585	89	110	18	201 (18 - 585)
Chicago, IL	Home Depot	50	215	282	72	155 (50 - 282)
Denver, CO	Home Depot	103	N/A	N/A	N/A	103 (103 - 103)
Detroit, MI	Home Depot	251	241	785	100	344 (100 - 785)
Houston, TX	Home Depot	123	239	116	131	152 (116 - 239)
	Lowe's	61	182	52	70	91 (52 - 182)
Minneapolis, MN	Home Depot	154	54	94	175	119 (54 - 175)
Missoula, MT	Home Depot	N/A	361	200	206.5	256 (200 - 361)
Omaha, NE	Home Depot	60	48	79	97	71 (48 - 97)
Philadelphia, PA	Home Depot	36	33	76	27	43 (27 - 76)
	Lowe's	78	218	24	390	178 (24 - 390)
San Francisco, CA	Home Depot	243	575	685	N/A	501 (243 - 685)
Seattle, WA	Home Depot	307	620	256	65	312 (65 - 620)
	Lowe's	131	380	252	N/A	254 (131 - 380)
Washington, DC	Home Depot	60	242	104	348	189 (60 - 348)
	Lowe's	118	145	209	67	135 (67 - 209)
<b>National Average</b>		<b>237</b>	<b>267</b>	<b>260</b>	<b>176</b>	<b>247</b>
<b>National Range</b>		<b>36 - 1020</b>	<b>33 - 680</b>	<b>24 - 785</b>	<b>18 - 540</b>	<b>18-1020</b>

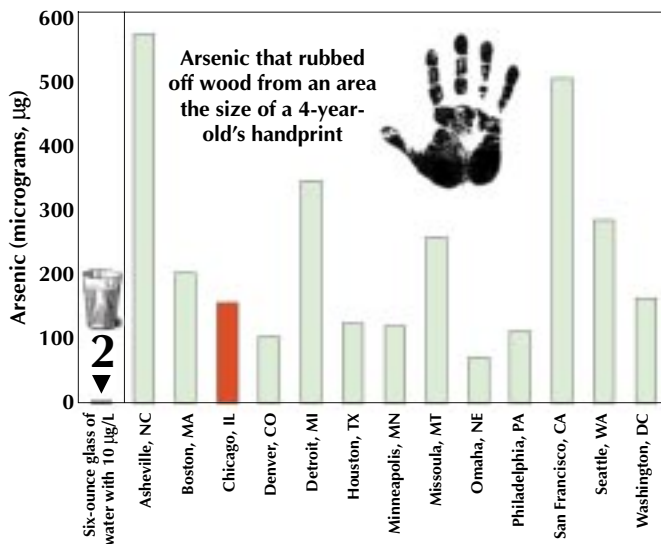
\*Size of a single handprint of a 4-year-old is about 100 cm<sup>2</sup>, calculated as one-quarter of the surface area of the hands, based on EPA body surface area data  
N/A – wood or test result not available

Arsenic treated lumber could significantly compound risks from arsenic contaminated drinking water. In its latest examination of arsenic toxicity, the National Academy of Sciences' (NAS's) National Research Council found that long-term arsenic exposures at EPA's proposed 10 micrograms a day translate into a 1 in 300 risk of lung or bladder cancer (NRC 2001). On average, our samplers easily wiped 25 times this amount (247 micrograms of arsenic) off the surface of arsenic treated lumber from Home Depot or Lowe's,



**Sampler swipes arsenic treated wood as part of the national retail testing program.**

**Figure 2: Average arsenic levels found on arsenic treated lumber in 13 U.S. cities.**



in an area the size of a four-year-old's hand. For children who regularly play on swing sets and decks made from arsenic treated wood, an equivalent of about one child in every grade school would develop lung or bladder cancer later in life.

**Store Locations**

Chicago testers purchased lumber at:

The Home Depot  
Oakton Rd  
Evanston, IL

# Arsenic-treated lumber testing results from The Home Depot and Lowe's Home Improvement Warehouse Retail Testing Program

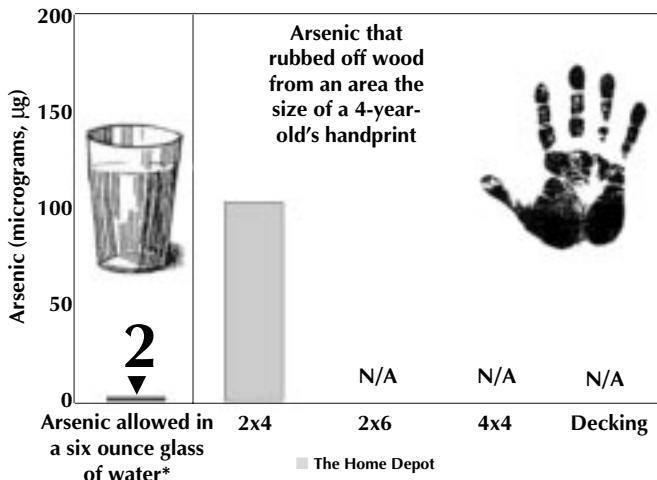
## Arsenic in Lumber – Denver, CO

### Arsenic in lumber from Home Depot in Denver

Go to any Home Depot or Lowe's and you will find aisle after aisle stacked floor to ceiling with insect resistant lumber soaked in arsenic. This wood is sold to homeowners and contractors who use it to build patios, decks, furniture, swing sets, picnic tables, and other outdoor structures. Scores of studies now show that arsenic from the wood rubs off onto hands and clothes, and that children can get especially high doses of arsenic because of the simple fact that they play on the wood and then put their hands in their mouths much more often than an average adult. Some toddlers mouth the wood, and other children get arsenic laced wood splinters embedded in their hands. As an acute poison and powerful carcinogen, arsenic is banned for all other pesticide uses, but wood treatment has a special exemption under federal law.

A nationwide investigation of stores in 13 U.S. cities by a coalition of U.S. public interest groups<sup>†</sup> found that Home Depot and Lowe's sell millions of board feet of "pressure treated" (arsenic treated) wood that exposes children to harmful levels of arsenic. In spite of their much ballyhooed consumer education program, Home Depot and Lowe's fail to warn parents about the dangers of arsenic in the wood they sell.

**Figure 1: An area the size of a four-year-old's handprint has enough arsenic to contaminate 50 glasses of water.**



**Table 1: Testing results from Home Depot in Denver.**

Wood tested	The Home Depot	Range in 13 Cities
	Arsenic that rubbed off of wood from an area the size of a 4-year old's handprint* (µg)	
2x4 Decks and playsets – posts, rail caps, benches	103	(36-1020)
4x4 Support posts for decks and playsets	N/A	(33-680)
2x6 Picnic tables tops, some playsets and deck rail caps	N/A	(24-785)
Decking Most common wood for deck surfaces (5/4" x 6")	N/A	(18-540)

*\*Size of a single handprint of a 4-year-old is about 100 cm<sup>2</sup>, calculated as one-quarter of the surface area of the hands, based on EPA body surface area data  
N/A – wood or test result not available*

Clean Water Action in Denver tested one standard types of wood at Home Depot, and found high amounts of arsenic on the surface of the wood. The maximum amount that rubbed off was 103 micrograms from an area the size of the palm of a four year old. This is equivalent to the arsenic in more than 50 child-sized glasses of water (six ounces each) polluted up to the maximum arsenic contamination level allowed under Environmental Protection Agency's (EPA) new proposed drinking water standard (10 micrograms of arsenic per liter of water).

### How dangerous is arsenic?

Arsenic is on EPA's very short list of chemicals known without question to cause cancer in humans. The National Academy of Sciences (NAS) and its National Research Council, which have now produced seven reports addressing arsenic, have concluded multiple times that arsenic causes lung, bladder, and skin cancer in humans, and may also cause other cancers including kidney, prostate, and nasal passage cancer. NAS and EPA's Science Advisory Board (SAB) also have concluded that arsenic may cause high blood pressure, cardiovascular disease, and diabetes.

*\* At EPA's new proposed standard for arsenic in drinking water (10 µg/L), there are 2 µg of arsenic in a 6 ounce glass of water*

*† Clean Water Action/Clean Water Fund, Clean Water Fund of North Carolina, Environmental Working Group, Generation Green, Healthy Building Network, Washington Toxics Coalition, and Women's Voices for the Earth*

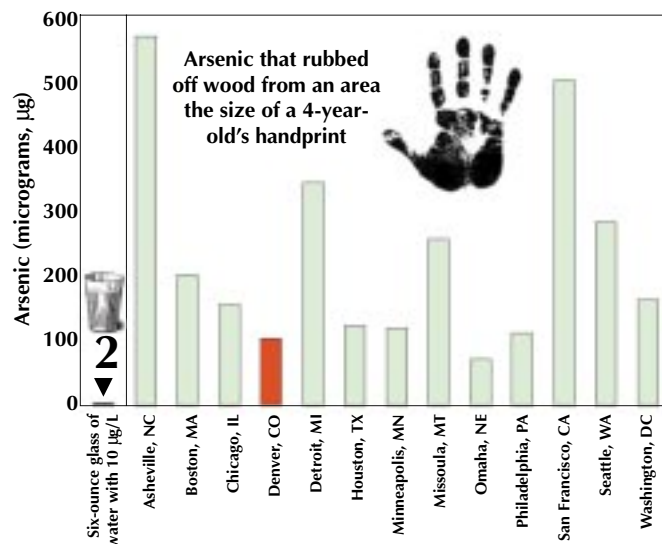
**Table 2: Testing results from The Home Depot and Lowe’s Home Improvement Warehouse in 13 cities across the United States.**

Wood Tested		2x4	4x4	2x6	Decking	All Woods
Arsenic that rubbed off of wood from an area the size of a 4-year old’s handprint* (µg)						
Asheville, NC	Home Depot	655	224	570	339	447 (224 - 655)
	Lowe's	1020	680	520	540	690 (520 - 1020)
Boston, MA	Home Depot	585	89	110	18	201 (18 - 585)
Chicago, IL	Home Depot	50	215	282	72	155 (50 - 282)
Denver, CO	Home Depot	103	N/A	N/A	N/A	103 (103 - 103)
Detroit, MI	Home Depot	251	241	785	100	344 (100 - 785)
Houston, TX	Home Depot	123	239	116	131	152 (116 - 239)
	Lowe's	61	182	52	70	91 (52 - 182)
Minneapolis, MN	Home Depot	154	54	94	175	119 (54 - 175)
Missoula, MT	Home Depot	N/A	361	200	206.5	256 (200 - 361)
Omaha, NE	Home Depot	60	48	79	97	71 (48 - 97)
Philadelphia, PA	Home Depot	36	33	76	27	43 (27 - 76)
	Lowe's	78	218	24	390	178 (24 - 390)
San Francisco, CA	Home Depot	243	575	685	N/A	501 (243 - 685)
Seattle, WA	Home Depot	307	620	256	65	312 (65 - 620)
	Lowe's	131	380	252	N/A	254 (131 - 380)
Washington, DC	Home Depot	60	242	104	348	189 (60 - 348)
	Lowe's	118	145	209	67	135 (67 - 209)
<b>National Average</b>		<b>237</b>	<b>267</b>	<b>260</b>	<b>176</b>	<b>247</b>
<b>National Range</b>		<b>36 - 1020</b>	<b>33 - 680</b>	<b>24 - 785</b>	<b>18 - 540</b>	<b>18-1020</b>

\*Size of a single handprint of a 4-year-old is about 100 cm<sup>2</sup>, calculated as one-quarter of the surface area of the hands, based on EPA body surface area data  
N/A – wood or test result not available

Arsenic treated lumber could significantly compound risks from arsenic contaminated drinking water. In its latest examination of arsenic toxicity, the National Academy of Sciences’ (NAS’) National Research Council found that long-term arsenic exposures at EPA’s proposed 10 micrograms a day translate into a 1 in 300 risk of lung or bladder cancer (NRC 2001). On average, our samplers easily wiped 25 times this amount (247 micrograms of arsenic) off the surface of arsenic treated lumber from Home Depot or Lowe’s,

**Figure 2: Average arsenic levels found on arsenic treated lumber in 13 U.S. cities.**



**Sampler swipes arsenic treated wood as part of the national retail testing program.**

in an area the size of a four-year-old’s hand. For children who regularly play on swing sets and decks made from arsenic treated wood, an equivalent of about one child in every grade school would develop lung or bladder cancer later in life.

**Store Locations**

Denver testers purchased lumber at:

The Home Depot  
860 S. Colorado Blvd  
Glendale, CO 80246

# Arsenic-treated lumber testing results from The Home Depot and Lowe's Home Improvement Warehouse Retail Testing Program

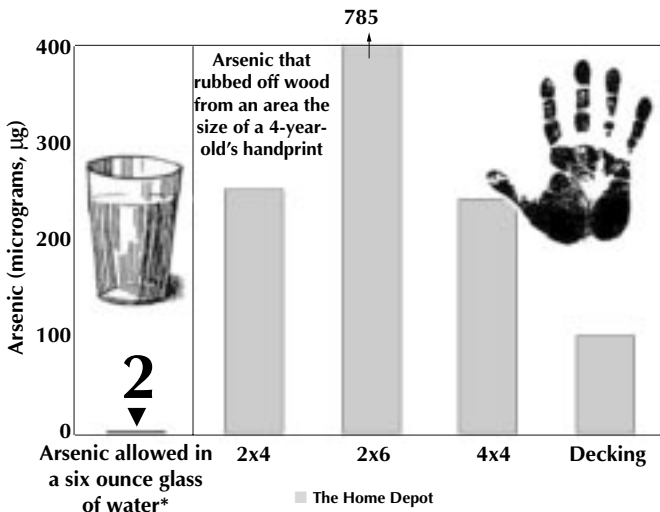
## Arsenic in Lumber – Detroit, MI

### Arsenic in lumber from Home Depot in Detroit

Go to any Home Depot or Lowe's and you will find aisle after aisle stacked floor to ceiling with insect resistant lumber soaked in arsenic. This wood is sold to homeowners and contractors who use it to build patios, decks, furniture, swing sets, picnic tables, and other outdoor structures. Scores of studies now show that arsenic from the wood rubs off onto hands and clothes, and that children can get especially high doses of arsenic because of the simple fact that they play on the wood and then put their hands in their mouths much more often than an average adult. Some toddlers mouth the wood, and other children get arsenic laced wood splinters embedded in their hands. As an acute poison and powerful carcinogen, arsenic is banned for all other pesticide uses, but wood treatment has a special exemption under federal law.

A nationwide investigation of stores in 13 U.S. cities by a coalition of U.S. public interest groups<sup>†</sup> found that Home Depot and Lowe's sell millions of board feet of "pressure treated" (arsenic treated) wood that exposes children to harmful levels of arsenic. In spite of their much ballyhooed consumer education program, Home Depot and Lowe's fail to warn parents about the dangers of arsenic in the wood they sell.

**Figure 1: An area the size of a four-year-old's handprint has enough arsenic to contaminate 350 glasses of water.**



**Table 1: Testing results from Home Depot in Detroit.**

Wood tested	The Home Depot	Range in 13 Cities
	Arsenic that rubbed off of wood from an area the size of a 4-year old's handprint* (µg)	
2x4 Decks and playsets – posts, rail caps, benches	251	(36-1020)
4x4 Support posts for decks and playsets	241	(33-680)
2x6 Picnic tables tops, some playsets and deck rail caps	785	(24-785)
Decking Most common wood for deck surfaces (5/4" x 6")	100	(18-540)

\*Size of a single handprint of a 4-year-old is about 100 cm<sup>2</sup>, calculated as one-quarter of the surface area of the hands, based on EPA body surface area data  
N/A – wood or test result not available

Clean Water Action in Detroit tested four standard types of wood at Home Depot, and found high amounts of arsenic on the surface of the wood. The maximum amount that rubbed off was 785 micrograms from an area the size of the palm of a four year old. This is equivalent to the arsenic in more than 350 child-sized glasses of water (six ounces each) polluted up to the maximum arsenic contamination level allowed under Environmental Protection Agency's (EPA) new proposed drinking water standard (10 micrograms of arsenic per liter of water).

### How dangerous is arsenic?

Arsenic is on EPA's very short list of chemicals known without question to cause cancer in humans. The National Academy of Sciences (NAS) and its National Research Council, which have now produced seven reports addressing arsenic, have concluded multiple times that arsenic causes lung, bladder, and skin cancer in humans, and may also cause other cancers including kidney, prostate, and nasal passage cancer. NAS and EPA's Science Advisory Board (SAB) also have concluded that arsenic may cause high blood pressure, cardiovascular disease, and diabetes.

\* At EPA's new proposed standard for arsenic in drinking water (10 µg/L), there are 2 µg of arsenic in a 6 ounce glass of water

† Clean Water Action/Clean Water Fund, Clean Water Fund of North Carolina, Environmental Working Group, Generation Green, Healthy Building Network, Washington Toxics Coalition, and Women's Voices for the Earth

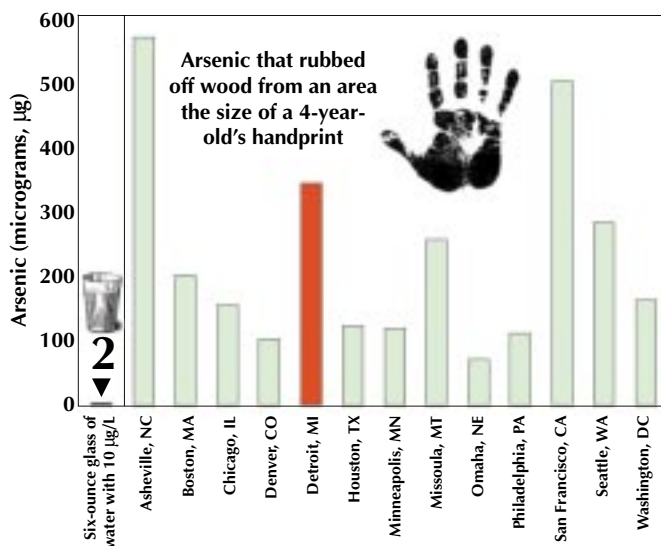
**Table 2: Testing results from The Home Depot and Lowe’s Home Improvement Warehouse in 13 cities across the United States.**

Wood Tested		2x4	4x4	2x6	Decking	All Woods
Arsenic that rubbed off of wood from an area the size of a 4-year old’s handprint* (µg)						
Asheville, NC	Home Depot	655	224	570	339	447 (224 - 655)
	Lowe's	1020	680	520	540	690 (520 - 1020)
Boston, MA	Home Depot	585	89	110	18	201 (18 - 585)
Chicago, IL	Home Depot	50	215	282	72	155 (50 - 282)
Denver, CO	Home Depot	103	N/A	N/A	N/A	103 (103 - 103)
Detroit, MI	Home Depot	251	241	785	100	344 (100 - 785)
Houston, TX	Home Depot	123	239	116	131	152 (116 - 239)
	Lowe's	61	182	52	70	91 (52 - 182)
Minneapolis, MN	Home Depot	154	54	94	175	119 (54 - 175)
Missoula, MT	Home Depot	N/A	361	200	206.5	256 (200 - 361)
Omaha, NE	Home Depot	60	48	79	97	71 (48 - 97)
Philadelphia, PA	Home Depot	36	33	76	27	43 (27 - 76)
	Lowe's	78	218	24	390	178 (24 - 390)
San Francisco, CA	Home Depot	243	575	685	N/A	501 (243 - 685)
Seattle, WA	Home Depot	307	620	256	65	312 (65 - 620)
	Lowe's	131	380	252	N/A	254 (131 - 380)
Washington, DC	Home Depot	60	242	104	348	189 (60 - 348)
	Lowe's	118	145	209	67	135 (67 - 209)
<b>National Average</b>		<b>237</b>	<b>267</b>	<b>260</b>	<b>176</b>	<b>247</b>
<b>National Range</b>		<b>36 - 1020</b>	<b>33 - 680</b>	<b>24 - 785</b>	<b>18 - 540</b>	<b>18-1020</b>

\*Size of a single handprint of a 4-year-old is about 100 cm<sup>2</sup>, calculated as one-quarter of the surface area of the hands, based on EPA body surface area data  
N/A – wood or test result not available

Arsenic treated lumber could significantly compound risks from arsenic contaminated drinking water. In its latest examination of arsenic toxicity, the National Academy of Sciences’ (NASS’) National Research Council found that long-term arsenic exposures at EPA’s proposed 10 micrograms a day translate into a 1 in 300 risk of lung or bladder cancer (NRC 2001). On average, our samplers easily wiped 25 times this amount (247 micrograms of arsenic) off the surface of arsenic treated lumber from Home Depot or Lowe’s,

**Figure 2: Average arsenic levels found on arsenic treated lumber in 13 U.S. cities.**



**Sampler swipes arsenic treated wood as part of the national retail testing program.**

in an area the size of a four-year-old’s hand. For children who regularly play on swing sets and decks made from arsenic treated wood, an equivalent of about one child in every grade school would develop lung or bladder cancer later in life.

### Store Locations

Detroit testers purchased lumber at:

The Home Depot  
20300 Kelly  
Harper Woods, MI 48225

# Arsenic-treated lumber testing results from The Home Depot and Lowe's Home Improvement Warehouse Retail Testing Program

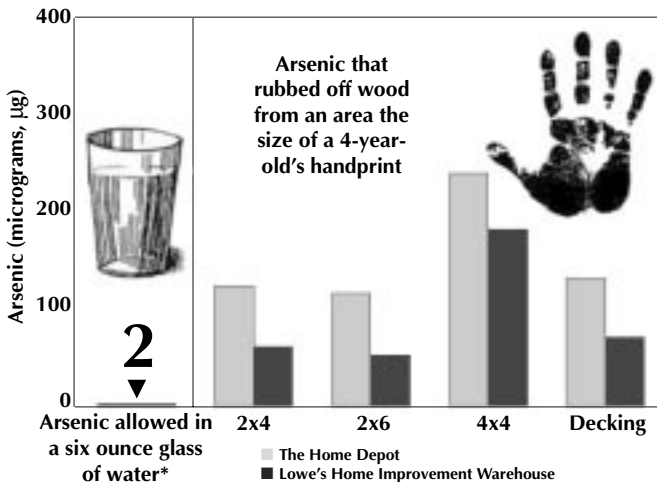
## Arsenic in Lumber – Houston, TX

### Arsenic in lumber from Home Depot and Lowe's in Houston, TX

Go to any Home Depot or Lowe's and you will find aisle after aisle stacked floor to ceiling with insect resistant lumber soaked in arsenic. This wood is sold to homeowners and contractors who use it to build patios, decks, furniture, swing sets, picnic tables, and other outdoor structures. Scores of studies now show that arsenic from the wood rubs off onto hands and clothes, and that children can get especially high doses of arsenic because of the simple fact that they play on the wood and then put their hands in their mouths much more often than an average adult. Some toddlers mouth the wood, and other children get arsenic laced wood splinters embedded in their hands. As an acute poison and powerful carcinogen, arsenic is banned for all other pesticide uses, but wood treatment has a special exemption under federal law.

A nationwide investigation of stores in 13 U.S. cities by a coalition of U.S. public interest groups<sup>†</sup> found that Home Depot and Lowe's sell millions of board feet of "pressure treated" (arsenic treated) wood that exposes children to harmful levels of arsenic. In spite of their much ballyhooed consumer education program, Home Depot and Lowe's fail to warn parents about the dangers of arsenic in the wood they sell.

**Figure 1: An area the size of a four-year-old's handprint has enough arsenic to contaminate 100 glasses of water.**



**Table 1: Testing results from Home Depot and Lowe's Home Improvement Warehouse in Houston.**

	The Home Depot	Lowe's Home Improvement Warehouse	Range in 13 Cities
<b>Wood tested</b>	Arsenic that rubbed off of wood from an area the size of a 4-year old's handprint* (µg)		
<b>2x4</b> Decks and playsets – posts, rail caps, benches	123	61	(36-1020)
<b>4x4</b> Support posts for decks and playsets	239	182	(33-680)
<b>2x6</b> Picnic tables tops, some playsets and deck rail caps	116	52	(24-785)
<b>Decking</b> Most common wood for deck surfaces (5/4" x 6")	131	70	(18-540)

*\*Size of a single handprint of a 4-year-old is about 100 cm<sup>2</sup>, calculated as one-quarter of the surface area of the hands, based on EPA body surface area data  
N/A – wood or test result not available*

Clean Water Action in Houston tested four standard types of wood at Home Depot and Lowe's, and found high amounts of arsenic on the surface of the wood. The maximum amount that rubbed off was 239 micrograms from an area the size of the palm of a four year old. This is equivalent to the arsenic in more than 100 child-sized glasses of water (six ounces each) polluted up to the maximum arsenic contamination level allowed under Environmental Protection Agency's (EPA) new proposed drinking water standard (10 micrograms of arsenic per liter of water).

### How dangerous is arsenic?

Arsenic is on EPA's very short list of chemicals known without question to cause cancer in humans. The National Academy of Sciences (NAS) and its National Research Council, which have now produced seven reports addressing arsenic, have concluded multiple times that arsenic causes lung, bladder, and skin cancer in humans, and may also cause other cancers including kidney, prostate, and nasal passage cancer. NAS and EPA's Science Advisory Board (SAB) also have concluded that arsenic may cause high blood pressure, cardiovascular disease, and diabetes.

*\* At EPA's new proposed standard for arsenic in drinking water (10 µg/L), there are 2 µg of arsenic in a 6 ounce glass of water*

*† Clean Water Action/Clean Water Fund, Clean Water Fund of North Carolina, Environmental Working Group, Generation Green, Healthy Building Network, Washington Toxics Coalition, and Women's Voices for the Earth*

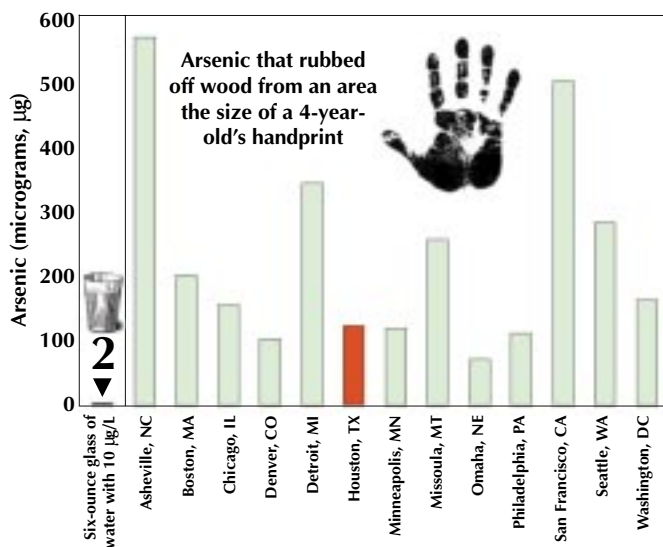
**Table 2: Testing results from The Home Depot and Lowe’s Home Improvement Warehouse in 13 cities across the United States.**

Wood Tested		2x4	4x4	2x6	Decking	All Woods
Arsenic that rubbed off of wood from an area the size of a 4-year old’s handprint* (µg)						
Asheville, NC	Home Depot	655	224	570	339	447 (224 - 655)
	Lowe's	1020	680	520	540	690 (520 - 1020)
Boston, MA	Home Depot	585	89	110	18	201 (18 - 585)
Chicago, IL	Home Depot	50	215	282	72	155 (50 - 282)
Denver, CO	Home Depot	103	N/A	N/A	N/A	103 (103 - 103)
Detroit, MI	Home Depot	251	241	785	100	344 (100 - 785)
Houston, TX	Home Depot	123	239	116	131	152 (116 - 239)
	Lowe's	61	182	52	70	91 (52 - 182)
Minneapolis, MN	Home Depot	154	54	94	175	119 (54 - 175)
Missoula, MT	Home Depot	N/A	361	200	206.5	256 (200 - 361)
Omaha, NE	Home Depot	60	48	79	97	71 (48 - 97)
Philadelphia, PA	Home Depot	36	33	76	27	43 (27 - 76)
	Lowe's	78	218	24	390	178 (24 - 390)
San Francisco, CA	Home Depot	243	575	685	N/A	501 (243 - 685)
Seattle, WA	Home Depot	307	620	256	65	312 (65 - 620)
	Lowe's	131	380	252	N/A	254 (131 - 380)
Washington, DC	Home Depot	60	242	104	348	189 (60 - 348)
	Lowe's	118	145	209	67	135 (67 - 209)
<b>National Average</b>		<b>237</b>	<b>267</b>	<b>260</b>	<b>176</b>	<b>247</b>
<b>National Range</b>		<b>36 - 1020</b>	<b>33 - 680</b>	<b>24 - 785</b>	<b>18 - 540</b>	<b>18-1020</b>

\*Size of a single handprint of a 4-year-old is about 100 cm<sup>2</sup>, calculated as one-quarter of the surface area of the hands, based on EPA body surface area data  
N/A – wood or test result not available

Arsenic treated lumber could significantly compound risks from arsenic contaminated drinking water. In its latest examination of arsenic toxicity, the National Academy of Sciences’ (NAS’) National Research Council found that long-term arsenic exposures at EPA’s proposed 10 micrograms a day translate into a 1 in 300 risk of lung or bladder cancer (NRC 2001). On average, our samplers easily wiped 25 times this amount (247 micrograms of arsenic) off the surface of arsenic treated lumber from Home Depot or Lowe’s,

**Figure 2: Average arsenic levels found on arsenic treated lumber in 13 U.S. cities.**



**Sampler swipes arsenic treated wood as part of the national retail testing program.**

in an area the size of a four-year-old’s hand. For children who regularly play on swing sets and decks made from arsenic treated wood, an equivalent of about one child in every grade school would develop lung or bladder cancer later in life.

### Store Locations

Houston testers purchased lumber at these stores:

The Home Depot #0574  
15305 SW Freeway  
Sugarland, Texas 77478

Lowe’s Home Improvement Warehouse  
16510 Southwest Freeway  
Sugarland, TX 77479

# Arsenic-treated lumber testing results from The Home Depot and Lowe's Home Improvement Warehouse Retail Testing Program

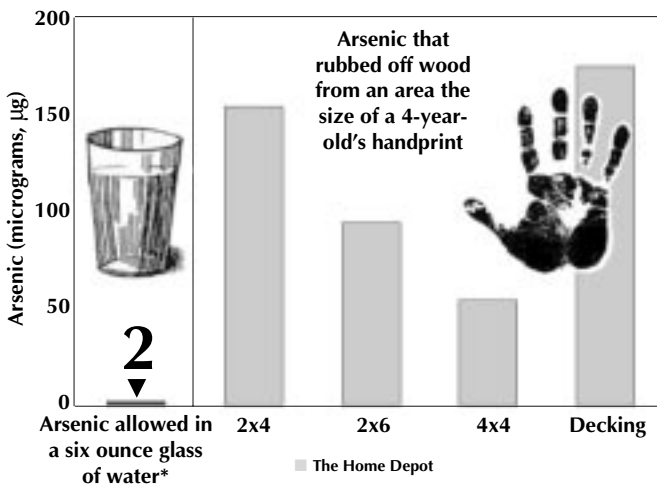
## Arsenic in Lumber – Minneapolis, MN

### Arsenic in lumber from Home Depot in Minneapolis, MN

Go to any Home Depot or Lowe's and you will find aisle after aisle stacked floor to ceiling with insect resistant lumber soaked in arsenic. This wood is sold to homeowners and contractors who use it to build patios, decks, furniture, swing sets, picnic tables, and other outdoor structures. Scores of studies now show that arsenic from the wood rubs off onto hands and clothes, and that children can get especially high doses of arsenic because of the simple fact that they play on the wood and then put their hands in their mouths much more often than an average adult. Some toddlers mouth the wood, and other children get arsenic laced wood splinters embedded in their hands. As an acute poison and powerful carcinogen, arsenic is banned for all other pesticide uses, but wood treatment has a special exemption under federal law.

A nationwide investigation of stores in 13 U.S. cities by a coalition of U.S. public interest groups<sup>†</sup> found that Home Depot and Lowe's sell millions of board feet of "pressure treated" (arsenic treated) wood that exposes children to harmful levels of arsenic. In spite of their much ballyhooed consumer education program, Home Depot and Lowe's fail to warn parents about the dangers of arsenic in the wood they sell.

**Figure 1: An area the size of a four-year-old's handprint has enough arsenic to contaminate 80 glasses of water.**



**Table 1: Testing results from Home Depot in Minneapolis, MN.**

Wood tested	The Home Depot	Range in 13 Cities
Arsenic that rubbed off of wood from an area the size of a 4-year old's handprint* (µg)		
2x4 Decks and playsets – posts, rail caps, benches	154	(36-1020)
4x4 Support posts for decks and playsets	54	(33-680)
2x6 Picnic tables tops, some playsets and deck rail caps	94	(24-785)
Decking Most common wood for deck surfaces (5/4" x 6")	175	(18-540)

*\*Size of a single handprint of a 4-year-old is about 100 cm<sup>2</sup>, calculated as one-quarter of the surface area of the hands, based on EPA body surface area data  
N/A – wood or test result not available*

Clean Water Action in Minneapolis tested four standard types of wood at Home Depot, and found high amounts of arsenic on the surface of the wood. The maximum amount that rubbed off was 175 micrograms from an area the size of the palm of a four year old. This is equivalent to the arsenic in more than 80 child-sized glasses of water (six ounces each) polluted up to the maximum arsenic contamination level allowed under Environmental Protection Agency's (EPA) new proposed drinking water standard (10 micrograms of arsenic per liter of water).

### How dangerous is arsenic?

Arsenic is on EPA's very short list of chemicals known without question to cause cancer in humans. The National Academy of Sciences (NAS) and its National Research Council, which have now produced seven reports addressing arsenic, have concluded multiple times that arsenic causes lung, bladder, and skin cancer in humans, and may also cause other cancers including kidney, prostate, and nasal passage cancer. NAS and EPA's Science Advisory Board (SAB) also have concluded that arsenic may cause high blood pressure, cardiovascular disease, and diabetes.

*\* At EPA's new proposed standard for arsenic in drinking water (10 µg/L), there are 2 µg of arsenic in a 6 ounce glass of water*

*† Clean Water Action/Clean Water Fund, Clean Water Fund of North Carolina, Environmental Working Group, Generation Green, Healthy Building Network, Washington Toxics Coalition, and Women's Voices for the Earth*

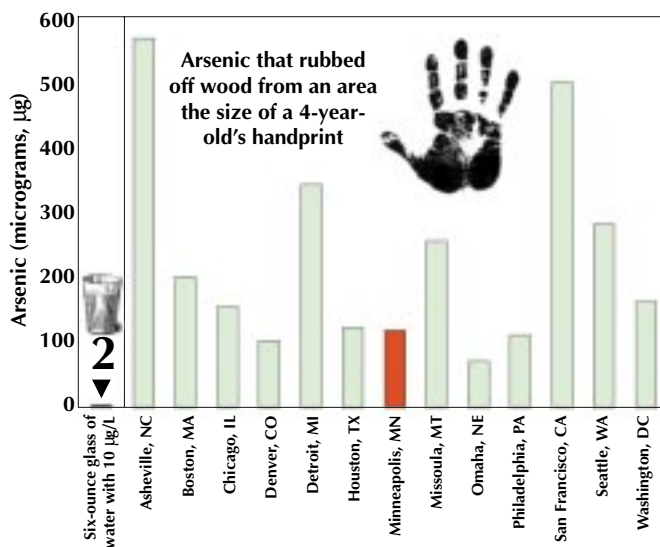
**Table 2: Testing results from The Home Depot and Lowe’s Home Improvement Warehouse in 13 cities across the United States.**

Wood Tested		2x4	4x4	2x6	Decking	All Woods
Arsenic that rubbed off of wood from an area the size of a 4-year old’s handprint* (µg)						
Asheville, NC	Home Depot	655	224	570	339	447 (224 - 655)
	Lowe's	1020	680	520	540	690 (520 - 1020)
Boston, MA	Home Depot	585	89	110	18	201 (18 - 585)
Chicago, IL	Home Depot	50	215	282	72	155 (50 - 282)
Denver, CO	Home Depot	103	N/A	N/A	N/A	103 (103 - 103)
Detroit, MI	Home Depot	251	241	785	100	344 (100 - 785)
Houston, TX	Home Depot	123	239	116	131	152 (116 - 239)
	Lowe's	61	182	52	70	91 (52 - 182)
Minneapolis, MN	Home Depot	154	54	94	175	119 (54 - 175)
Missoula, MT	Home Depot	N/A	361	200	206.5	256 (200 - 361)
Omaha, NE	Home Depot	60	48	79	97	71 (48 - 97)
Philadelphia, PA	Home Depot	36	33	76	27	43 (27 - 76)
	Lowe's	78	218	24	390	178 (24 - 390)
San Francisco, CA	Home Depot	243	575	685	N/A	501 (243 - 685)
Seattle, WA	Home Depot	307	620	256	65	312 (65 - 620)
	Lowe's	131	380	252	N/A	254 (131 - 380)
Washington, DC	Home Depot	60	242	104	348	189 (60 - 348)
	Lowe's	118	145	209	67	135 (67 - 209)
<b>National Average</b>		<b>237</b>	<b>267</b>	<b>260</b>	<b>176</b>	<b>247</b>
<b>National Range</b>		<b>36 - 1020</b>	<b>33 - 680</b>	<b>24 - 785</b>	<b>18 - 540</b>	<b>18-1020</b>

\*Size of a single handprint of a 4-year-old is about 100 cm<sup>2</sup>, calculated as one-quarter of the surface area of the hands, based on EPA body surface area data  
N/A – wood or test result not available

Arsenic treated lumber could significantly compound risks from arsenic contaminated drinking water. In its latest examination of arsenic toxicity, the National Academy of Sciences’ (NAS’) National Research Council found that long-term arsenic exposures at EPA’s proposed 10 micrograms a day translate into a 1 in 300 risk of lung or bladder cancer (NRC 2001). On average, our samplers easily wiped 25 times this amount (247 micrograms of arsenic) off the surface of arsenic treated lumber from Home Depot or Lowe’s,

**Figure 2: Average arsenic levels found on arsenic treated lumber in 13 U.S. cities.**



**Sampler swipes arsenic treated wood as part of the national retail testing program.**

in an area the size of a four-year-old’s hand. For children who regularly play on swing sets and decks made from arsenic treated wood, an equivalent of about one child in every grade school would develop lung or bladder cancer later in life.

### Store Locations

Minneapolis testers purchased lumber at:

The Home Depot  
1520 New Brighton Blvd  
Minneapolis, MN

# Arsenic-treated lumber testing results from The Home Depot and Lowe's Home Improvement Warehouse Retail Testing Program

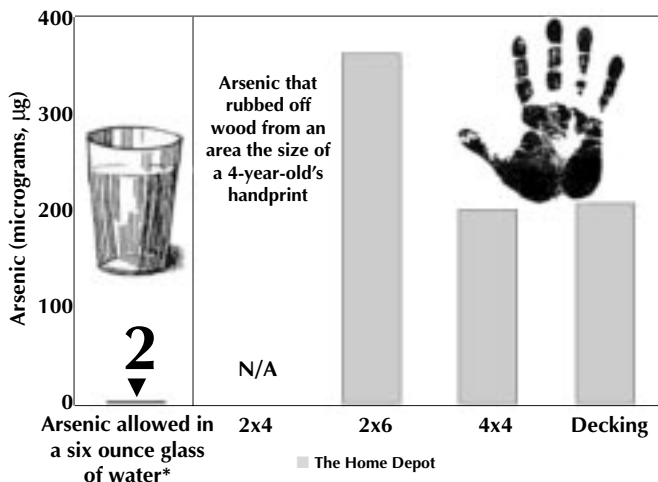
## Arsenic in Lumber – Missoula, MT

### Arsenic in lumber from Home Depot in Missoula, MT

Go to any Home Depot or Lowe's and you will find aisle after aisle stacked floor to ceiling with insect resistant lumber soaked in arsenic. This wood is sold to homeowners and contractors who use it to build patios, decks, furniture, swing sets, picnic tables, and other outdoor structures. Scores of studies now show that arsenic from the wood rubs off onto hands and clothes, and that children can get especially high doses of arsenic because of the simple fact that they play on the wood and then put their hands in their mouths much more often than an average adult. Some toddlers mouth the wood, and other children get arsenic laced wood splinters embedded in their hands. As an acute poison and powerful carcinogen, arsenic is banned for all other pesticide uses, but wood treatment has a special exemption under federal law.

A nationwide investigation of stores in 13 U.S. cities by a coalition of U.S. public interest groups<sup>†</sup> found that Home Depot and Lowe's sell millions of board feet of "pressure treated" (arsenic treated) wood that exposes children to harmful levels of arsenic. In spite of their much ballyhooed consumer education program, Home Depot and Lowe's fail to warn parents about the dangers of arsenic in the wood they sell.

**Figure 1: An area the size of a four-year-old's handprint has enough arsenic to contaminate 180 glasses of water.**



**Table 1: Testing results from Home Depot in Omaha.**

Wood tested	The Home Depot	Range in 13 Cities
	Arsenic that rubbed off of wood from an area the size of a 4-year old's handprint* (µg)	
2x4 Decks and playsets – posts, rail caps, benches	N/A	(36-1020)
4x4 Support posts for decks and playsets	361	(33-680)
2x6 Picnic tables tops, some playsets and deck rail caps	200	(24-785)
Decking Most common wood for deck surfaces (5/4" x 6")	206.5	(18-540)

\*Size of a single handprint of a 4-year-old is about 100 cm<sup>2</sup>, calculated as one-quarter of the surface area of the hands, based on EPA body surface area data  
N/A – wood or test result not available

Women's Voices for the Earth in Missoula tested three standard types of wood at Home Depot, and found high amounts of arsenic on the surface of the wood. The maximum amount that rubbed off was 361 micrograms from an area the size of the palm of a four year old. This is equivalent to the arsenic in more than 180 child-sized glasses of water (six ounces each) polluted up to the maximum arsenic contamination level allowed under Environmental Protection Agency's (EPA) new proposed drinking water standard (10 micrograms of arsenic per liter of water).

### How dangerous is arsenic?

Arsenic is on EPA's very short list of chemicals known without question to cause cancer in humans. The National Academy of Sciences (NAS) and its National Research Council, which have now produced seven reports addressing arsenic, have concluded multiple times that arsenic causes lung, bladder, and skin cancer in humans, and may also cause other cancers including kidney, prostate, and nasal passage cancer. NAS and EPA's Science Advisory Board (SAB) also have concluded that arsenic may cause high blood pressure, cardiovascular disease, and diabetes.

\* At EPA's new proposed standard for arsenic in drinking water (10 µg/L), there are 2 µg of arsenic in a 6 ounce glass of water

† Clean Water Action/Clean Water Fund, Clean Water Fund of North Carolina, Environmental Working Group, Generation Green, Healthy Building Network, Washington Toxics Coalition, and Women's Voices for the Earth

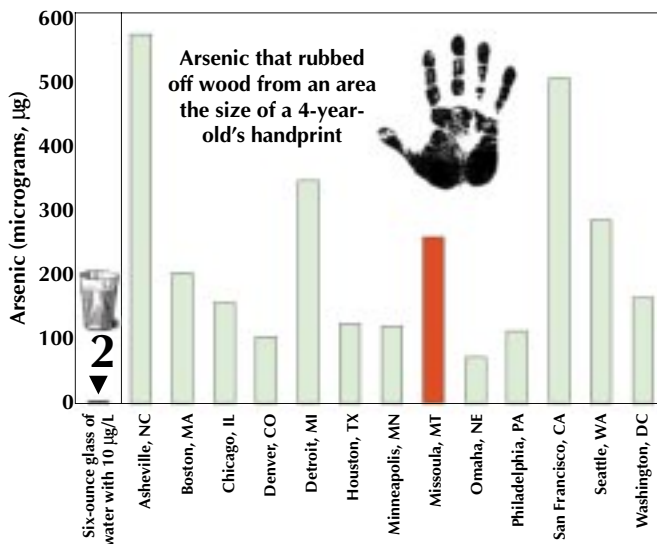
**Table 2: Testing results from The Home Depot and Lowe’s Home Improvement Warehouse in 13 cities across the United States.**

Wood Tested		2x4	4x4	2x6	Decking	All Woods
Arsenic that rubbed off of wood from an area the size of a 4-year old’s handprint* (µg)						
Asheville, NC	Home Depot	655	224	570	339	447 (224 - 655)
	Lowe's	1020	680	520	540	690 (520 - 1020)
Boston, MA	Home Depot	585	89	110	18	201 (18 - 585)
Chicago, IL	Home Depot	50	215	282	72	155 (50 - 282)
Denver, CO	Home Depot	103	N/A	N/A	N/A	103 (103 - 103)
Detroit, MI	Home Depot	251	241	785	100	344 (100 - 785)
Houston, TX	Home Depot	123	239	116	131	152 (116 - 239)
	Lowe's	61	182	52	70	91 (52 - 182)
Minneapolis, MN	Home Depot	154	54	94	175	119 (54 - 175)
Missoula, MT	Home Depot	N/A	361	200	206.5	256 (200 - 361)
Omaha, NE	Home Depot	60	48	79	97	71 (48 - 97)
Philadelphia, PA	Home Depot	36	33	76	27	43 (27 - 76)
	Lowe's	78	218	24	390	178 (24 - 390)
San Francisco, CA	Home Depot	243	575	685	N/A	501 (243 - 685)
Seattle, WA	Home Depot	307	620	256	65	312 (65 - 620)
	Lowe's	131	380	252	N/A	254 (131 - 380)
Washington, DC	Home Depot	60	242	104	348	189 (60 - 348)
	Lowe's	118	145	209	67	135 (67 - 209)
<b>National Average</b>		<b>237</b>	<b>267</b>	<b>260</b>	<b>176</b>	<b>247</b>
<b>National Range</b>		<b>36 - 1020</b>	<b>33 - 680</b>	<b>24 - 785</b>	<b>18 - 540</b>	<b>18-1020</b>

\*Size of a single handprint of a 4-year-old is about 100 cm<sup>2</sup>, calculated as one-quarter of the surface area of the hands, based on EPA body surface area data  
N/A – wood or test result not available

Arsenic treated lumber could significantly compound risks from arsenic contaminated drinking water. In its latest examination of arsenic toxicity, the National Academy of Sciences’ (NASS’) National Research Council found that long-term arsenic exposures at EPA’s proposed 10 micrograms a day translate into a 1 in 300 risk of lung or bladder cancer (NRC 2001). On average, our samplers easily wiped 25 times this amount (247 micrograms of arsenic) off the surface of arsenic treated lumber from Home Depot or Lowe’s,

**Figure 2: Average arsenic levels found on arsenic treated lumber in 13 U.S. cities.**



**Sampler swipes arsenic treated wood as part of the national retail testing program.**

in an area the size of a four-year-old’s hand. For children who regularly play on swing sets and decks made from arsenic treated wood, an equivalent of about one child in every grade school would develop lung or bladder cancer later in life.

**Store Locations**

Missoula testers purchased lumber at:

The Home Depot  
2725 Radio Way  
Missoula, MT 59808

# Arsenic-treated lumber testing results from The Home Depot and Lowe's Home Improvement Warehouse Retail Testing Program

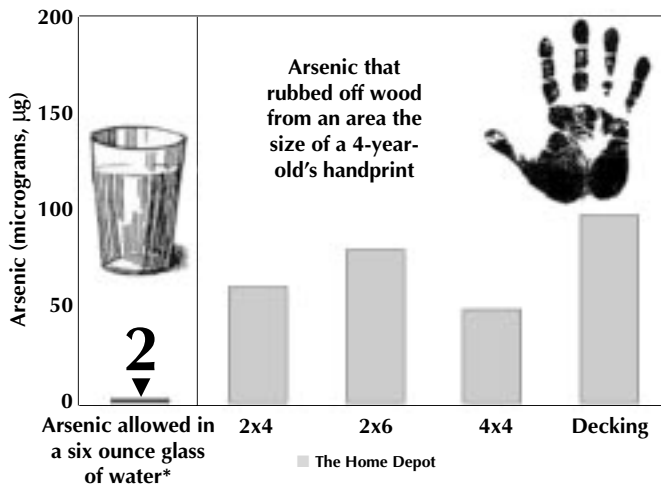
## Arsenic in Lumber – Omaha, NE

### Arsenic in lumber from Home Depot in Omaha, NE

Go to any Home Depot or Lowe's and you will find aisle after aisle stacked floor to ceiling with insect resistant lumber soaked in arsenic. This wood is sold to homeowners and contractors who use it to build patios, decks, furniture, swing sets, picnic tables, and other outdoor structures. Scores of studies now show that arsenic from the wood rubs off onto hands and clothes, and that children can get especially high doses of arsenic because of the simple fact that they play on the wood and then put their hands in their mouths much more often than an average adult. Some toddlers mouth the wood, and other children get arsenic laced wood splinters embedded in their hands. As an acute poison and powerful carcinogen, arsenic is banned for all other pesticide uses, but wood treatment has a special exemption under federal law.

A nationwide investigation of stores in 13 U.S. cities by a coalition of U.S. public interest groups<sup>†</sup> found that Home Depot and Lowe's sell millions of board feet of "pressure treated" (arsenic treated) wood that exposes children to harmful levels of arsenic. In spite of their much ballyhooed consumer education program, Home Depot and Lowe's fail to warn parents about the dangers of arsenic in the wood they sell.

**Figure 1: An area the size of a four-year-old's handprint has enough arsenic to contaminate 40 glasses of water.**



**Table 1: Testing results from Home Depot in Omaha.**

	The Home Depot	Range in 13 Cities
<b>Wood tested</b>	Arsenic that rubbed off of wood from an area the size of a 4-year old's handprint* (µg)	
<b>2x4</b> Decks and playsets – posts, rail caps, benches	60	(36-1020)
<b>4x4</b> Support posts for decks and playsets	48	(33-680)
<b>2x6</b> Picnic tables tops, some playsets and deck rail caps	79	(24-785)
<b>Decking</b> Most common wood for deck surfaces (5/4" x 6")	97	(18-540)

*\*Size of a single handprint of a 4-year-old is about 100 cm<sup>2</sup>, calculated as one-quarter of the surface area of the hands, based on EPA body surface area data  
N/A – wood or test result not available*

Generation Green in Omaha tested four standard types of wood at Home Depot, and found high amounts of arsenic on the surface of the wood. The maximum amount that rubbed off was 97 micrograms from an area the size of the palm of a four year old. This is equivalent to the arsenic in more than 40 child-sized glasses of water (six ounces each) polluted up to the maximum arsenic contamination level allowed under Environmental Protection Agency's (EPA) new proposed drinking water standard (10 micrograms of arsenic per liter of water).

### How dangerous is arsenic?

Arsenic is on EPA's very short list of chemicals known without question to cause cancer in humans. The National Academy of Sciences (NAS) and its National Research Council, which have now produced seven reports addressing arsenic, have concluded multiple times that arsenic causes lung, bladder, and skin cancer in humans, and may also cause other cancers including kidney, prostate, and nasal passage cancer. NAS and EPA's Science Advisory Board (SAB) also have concluded that arsenic may cause high blood pressure, cardiovascular disease, and diabetes.

*\* At EPA's new proposed standard for arsenic in drinking water (10 µg/L), there are 2 µg of arsenic in a 6 ounce glass of water*

*† Clean Water Action/Clean Water Fund, Clean Water Fund of North Carolina, Environmental Working Group, Generation Green, Healthy Building Network, Washington Toxics Coalition, and Women's Voices for the Earth*

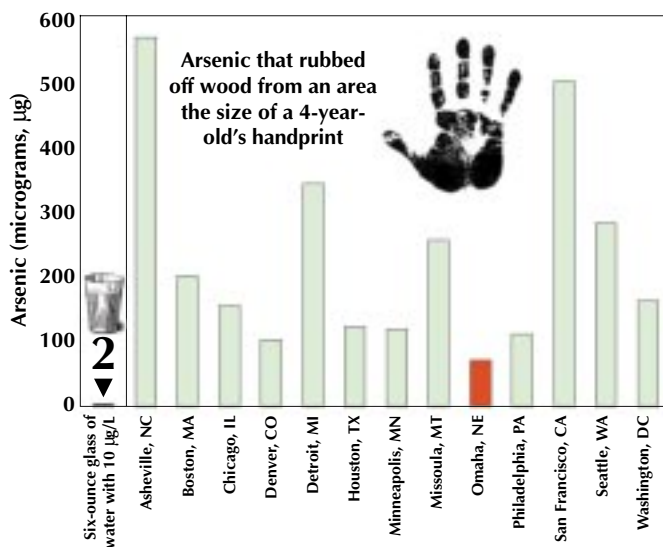
**Table 2: Testing results from The Home Depot and Lowe's Home Improvement Warehouse in 13 cities across the United States.**

Wood Tested		2x4	4x4	2x6	Decking	All Woods
Arsenic that rubbed off of wood from an area the size of a 4-year old's handprint* (µg)						
Asheville, NC	Home Depot	655	224	570	339	447 (224 - 655)
	Lowe's	1020	680	520	540	690 (520 - 1020)
Boston, MA	Home Depot	585	89	110	18	201 (18 - 585)
Chicago, IL	Home Depot	50	215	282	72	155 (50 - 282)
Denver, CO	Home Depot	103	N/A	N/A	N/A	103 (103 - 103)
Detroit, MI	Home Depot	251	241	785	100	344 (100 - 785)
Houston, TX	Home Depot	123	239	116	131	152 (116 - 239)
	Lowe's	61	182	52	70	91 (52 - 182)
Minneapolis, MN	Home Depot	154	54	94	175	119 (54 - 175)
Missoula, MT	Home Depot	N/A	361	200	206.5	256 (200 - 361)
Omaha, NE	Home Depot	60	48	79	97	71 (48 - 97)
Philadelphia, PA	Home Depot	36	33	76	27	43 (27 - 76)
	Lowe's	78	218	24	390	178 (24 - 390)
San Francisco, CA	Home Depot	243	575	685	N/A	501 (243 - 685)
Seattle, WA	Home Depot	307	620	256	65	312 (65 - 620)
	Lowe's	131	380	252	N/A	254 (131 - 380)
Washington, DC	Home Depot	60	242	104	348	189 (60 - 348)
	Lowe's	118	145	209	67	135 (67 - 209)
<b>National Average</b>		<b>237</b>	<b>267</b>	<b>260</b>	<b>176</b>	<b>247</b>
<b>National Range</b>		<b>36 - 1020</b>	<b>33 - 680</b>	<b>24 - 785</b>	<b>18 - 540</b>	<b>18-1020</b>

\*Size of a single handprint of a 4-year-old is about 100 cm<sup>2</sup>, calculated as one-quarter of the surface area of the hands, based on EPA body surface area data  
N/A – wood or test result not available

Arsenic treated lumber could significantly compound risks from arsenic contaminated drinking water. In its latest examination of arsenic toxicity, the National Academy of Sciences' (NAS's) National Research Council found that long-term arsenic exposures at EPA's proposed 10 micrograms a day translate into a 1 in 300 risk of lung or bladder cancer (NRC 2001). On average, our samplers easily wiped 25 times this amount (247 micrograms of arsenic) off the surface of arsenic treated lumber from Home Depot or Lowe's,

**Figure 2: Average arsenic levels found on arsenic treated lumber in 13 U.S. cities.**



**Sampler swipes arsenic treated wood as part of the national retail testing program.**

in an area the size of a four-year-old's hand. For children who regularly play on swing sets and decks made from arsenic treated wood, an equivalent of about one child in every grade school would develop lung or bladder cancer later in life.

### Store Locations

Omaha testers purchased lumber at:

The Home Depot  
3950 N 144th  
Omaha, NE 68116

# Arsenic-treated lumber testing results from The Home Depot and Lowe's Home Improvement Warehouse Retail Testing Program

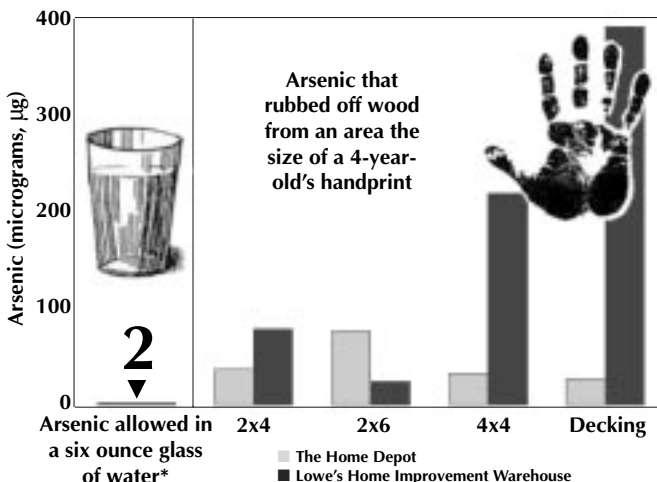
## Arsenic in Lumber – Philadelphia, PA

### Arsenic in lumber from Home Depot and Lowe's in Philadelphia, PA

Go to any Home Depot or Lowe's and you will find aisle after aisle stacked floor to ceiling with insect resistant lumber soaked in arsenic. This wood is sold to homeowners and contractors who use it to build patios, decks, furniture, swing sets, picnic tables, and other outdoor structures. Scores of studies now show that arsenic from the wood rubs off onto hands and clothes, and that children can get especially high doses of arsenic because of the simple fact that they play on the wood and then put their hands in their mouths much more often than an average adult. Some toddlers mouth the wood, and other children get arsenic laced wood splinters embedded in their hands. As an acute poison and powerful carcinogen, arsenic is banned for all other pesticide uses, but wood treatment has a special exemption under federal law.

A nationwide investigation of stores in 13 U.S. cities by a coalition of U.S. public interest groups<sup>†</sup> found that Home Depot and Lowe's sell millions of board feet of "pressure treated" (arsenic treated) wood that exposes children to harmful levels of arsenic. In spite of their much ballyhooed consumer education program, Home Depot and Lowe's fail to warn parents about the dangers of arsenic in the wood they sell.

**Figure 1: An area the size of a four-year-old's handprint has enough arsenic to contaminate 190 glasses of water.**



**Table 1: Testing results from Home Depot and Lowe's Home Improvement Warehouse in Philadelphia.**

Wood tested	The Home Depot	Lowe's Home Improvement Warehouse	Range in 13 Cities
Arsenic that rubbed off of wood from an area the size of a 4-year old's handprint* (µg)			
2x4 Decks and playsets – posts, rail caps, benches	36	78	(36-1020)
4x4 Support posts for decks and playsets	33	218	(33-680)
2x6 Picnic tables tops, some playsets and deck rail caps	76	24	(24-785)
Decking Most common wood for deck surfaces (5/4" x 6")	27	390	(18-540)

\*Size of a single handprint of a 4-year-old is about 100 cm<sup>2</sup>, calculated as one-quarter of the surface area of the hands, based on EPA body surface area data  
N/A – wood or test result not available

Clean Water Action in Philadelphia tested four standard types of wood at Home Depot and Lowe's, and found high amounts of arsenic on the surface of the wood. The maximum amount that rubbed off was 390 micrograms from an area the size of the palm of a four year old. This is equivalent to the arsenic in more than 190 child-sized glasses of water (six ounces each) polluted up to the maximum arsenic contamination level allowed under Environmental Protection Agency's (EPA) new proposed drinking water standard (10 micrograms of arsenic per liter of water).

### How dangerous is arsenic?

Arsenic is on EPA's very short list of chemicals known without question to cause cancer in humans. The National Academy of Sciences (NAS) and its National Research Council, which have now produced seven reports addressing arsenic, have concluded multiple times that arsenic causes lung, bladder, and skin cancer in humans, and may also cause other cancers including kidney, prostate, and nasal passage cancer. NAS and EPA's Science Advisory Board (SAB) also have concluded that arsenic may cause high blood pressure, cardiovascular disease, and diabetes.

\* At EPA's new proposed standard for arsenic in drinking water (10 µg/L), there are 2 µg of arsenic in a 6 ounce glass of water

† Clean Water Action/Clean Water Fund, Clean Water Fund of North Carolina, Environmental Working Group, Generation Green, Healthy Building Network, Washington Toxics Coalition, and Women's Voices for the Earth

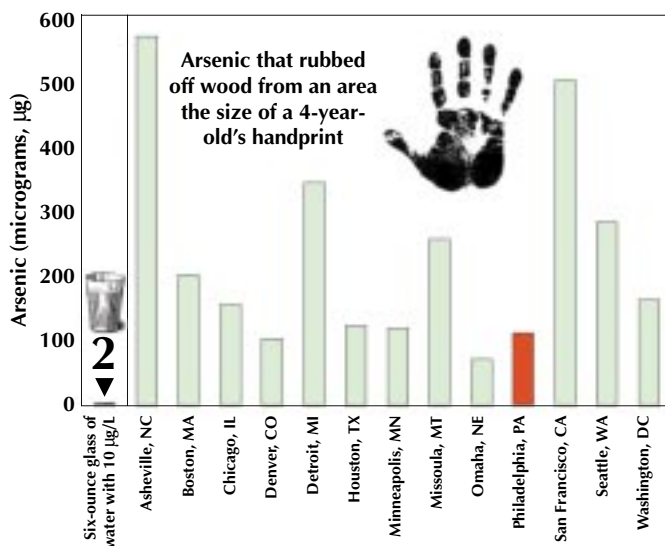
**Table 2: Testing results from The Home Depot and Lowe’s Home Improvement Warehouse in 13 cities across the United States.**

Wood Tested		2x4	4x4	2x6	Decking	All Woods
Arsenic that rubbed off of wood from an area the size of a 4-year old’s handprint* (µg)						
Asheville, NC	Home Depot	655	224	570	339	447 (224 - 655)
	Lowe's	1020	680	520	540	690 (520 - 1020)
Boston, MA	Home Depot	585	89	110	18	201 (18 - 585)
Chicago, IL	Home Depot	50	215	282	72	155 (50 - 282)
Denver, CO	Home Depot	103	N/A	N/A	N/A	103 (103 - 103)
Detroit, MI	Home Depot	251	241	785	100	344 (100 - 785)
Houston, TX	Home Depot	123	239	116	131	152 (116 - 239)
	Lowe's	61	182	52	70	91 (52 - 182)
Minneapolis, MN	Home Depot	154	54	94	175	119 (54 - 175)
Missoula, MT	Home Depot	N/A	361	200	206.5	256 (200 - 361)
Omaha, NE	Home Depot	60	48	79	97	71 (48 - 97)
Philadelphia, PA	Home Depot	36	33	76	27	43 (27 - 76)
	Lowe's	78	218	24	390	178 (24 - 390)
San Francisco, CA	Home Depot	243	575	685	N/A	501 (243 - 685)
Seattle, WA	Home Depot	307	620	256	65	312 (65 - 620)
	Lowe's	131	380	252	N/A	254 (131 - 380)
Washington, DC	Home Depot	60	242	104	348	189 (60 - 348)
	Lowe's	118	145	209	67	135 (67 - 209)
<b>National Average</b>		<b>237</b>	<b>267</b>	<b>260</b>	<b>176</b>	<b>247</b>
<b>National Range</b>		<b>36 - 1020</b>	<b>33 - 680</b>	<b>24 - 785</b>	<b>18 - 540</b>	<b>18-1020</b>

\*Size of a single handprint of a 4-year-old is about 100 cm<sup>2</sup>, calculated as one-quarter of the surface area of the hands, based on EPA body surface area data  
N/A – wood or test result not available

Arsenic treated lumber could significantly compound risks from arsenic contaminated drinking water. In its latest examination of arsenic toxicity, the National Academy of Sciences’ (NAS)’ National Research Council found that long-term arsenic exposures at EPA’s proposed 10 micrograms a day translate into a 1 in 300 risk of lung or bladder cancer (NRC 2001). On average, our samplers easily wiped 25 times this amount (247 micrograms of arsenic) off the surface of arsenic treated lumber from Home Depot or Lowe’s,

**Figure 2: Average arsenic levels found on arsenic treated lumber in 13 U.S. cities.**



**Sampler swipes arsenic treated wood as part of the national retail testing program.**

in an area the size of a four-year-old’s hand. For children who regularly play on swing sets and decks made from arsenic treated wood, an equivalent of about one child in every grade school would develop lung or bladder cancer later in life.

### Store Locations

Philadelphia testers purchased lumber at these stores:

The Home Depot  
2385 Cheltenham Ave  
Philadelphia, PA 19150

Lowe’s Home Improvement Warehouse  
1755 Quentin Rd  
Lebanon PA 17042

# Arsenic-treated lumber testing results from The Home Depot and Lowe's Home Improvement Warehouse Retail Testing Program

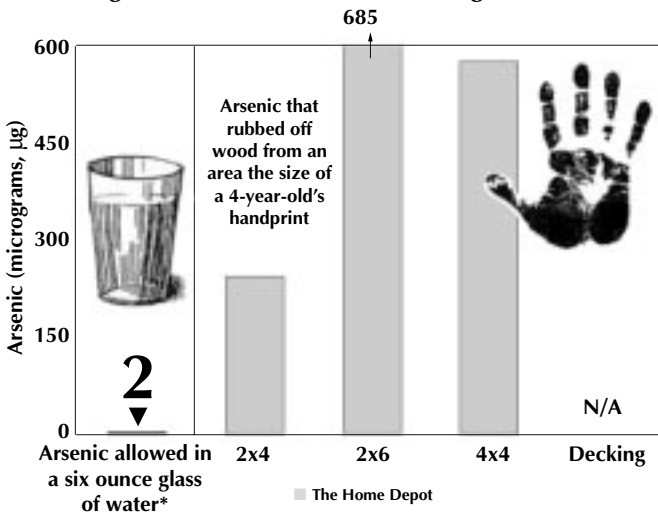
## Arsenic in Lumber – San Francisco, CA

### Arsenic in lumber from Home Depot in San Francisco, CA

Go to any Home Depot or Lowe's and you will find aisle after aisle stacked floor to ceiling with insect resistant lumber soaked in arsenic. This wood is sold to homeowners and contractors who use it to build patios, decks, furniture, swing sets, picnic tables, and other outdoor structures. Scores of studies now show that arsenic from the wood rubs off onto hands and clothes, and that children can get especially high doses of arsenic because of the simple fact that they play on the wood and then put their hands in their mouths much more often than an average adult. Some toddlers mouth the wood, and other children get arsenic laced wood splinters embedded in their hands. As an acute poison and powerful carcinogen, arsenic is banned for all other pesticide uses, but wood treatment has a special exemption under federal law.

A nationwide investigation of stores in 13 U.S. cities by a coalition of U.S. public interest groups<sup>†</sup> found that Home Depot and Lowe's sell millions of board feet of "pressure treated" (arsenic treated) wood that exposes children to harmful levels of arsenic. In spite of their much ballyhooed consumer education program, Home Depot and Lowe's fail to warn parents about the dangers of arsenic in the wood they sell.

**Figure 1: An area the size of a four-year-old's handprint has enough arsenic to contaminate 300 glasses of water.**



**Table 1: Testing results from Home Depot in San Francisco.**

Wood tested	The Home Depot	Range in 13 Cities
	Arsenic that rubbed off of wood from an area the size of a 4-year old's handprint* (µg)	
2x4 Decks and playsets – posts, rail caps, benches	243	(36-1020)
4x4 Support posts for decks and playsets	575	(33-680)
2x6 Picnic tables tops, some playsets and deck rail caps	685	(24-785)
Decking Most common wood for deck surfaces (5/4" x 6")	N/A	(18-540)

*\*Size of a single handprint of a 4-year-old is about 100 cm<sup>2</sup>, calculated as one-quarter of the surface area of the hands, based on EPA body surface area data  
N/A – wood or test result not available*

Environmental Working Group in San Francisco tested four standard types of wood at Home Depot and Lowe's, and found high amounts of arsenic on the surface of the wood. The maximum amount that rubbed off was 685 micrograms from an area the size of the palm of a four year old. This is equivalent to the arsenic in more than 300 child-sized glasses of water (six ounces each) polluted up to the maximum arsenic contamination level allowed under Environmental Protection Agency's (EPA) new proposed drinking water standard (10 micrograms of arsenic per liter of water).

### How dangerous is arsenic?

Arsenic is on EPA's very short list of chemicals known without question to cause cancer in humans. The National Academy of Sciences (NAS) and its National Research Council, which have now produced seven reports addressing arsenic, have concluded multiple times that arsenic causes lung, bladder, and skin cancer in humans, and may also cause other cancers including kidney, prostate, and nasal passage cancer. NAS and EPA's Science Advisory Board (SAB) also have concluded that arsenic may cause high blood pressure, cardiovascular disease, and diabetes.

*\* At EPA's new proposed standard for arsenic in drinking water (10 µg/L), there are 2 µg of arsenic in a 6 ounce glass of water*

*† Clean Water Action/Clean Water Fund, Clean Water Fund of North Carolina, Environmental Working Group, Generation Green, Healthy Building Network, Washington Toxics Coalition, and Women's Voices for the Earth*

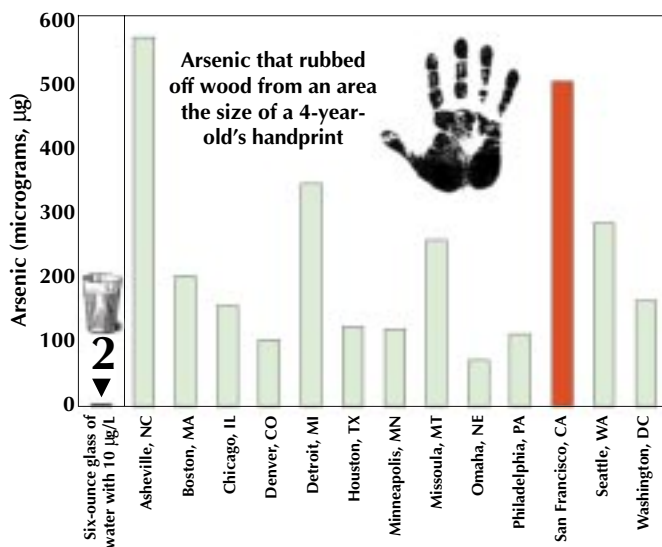
**Table 2: Testing results from The Home Depot and Lowe's Home Improvement Warehouse in 13 cities across the United States.**

Wood Tested		2x4	4x4	2x6	Decking	All Woods
Arsenic that rubbed off of wood from an area the size of a 4-year old's handprint* (µg)						
Asheville, NC	Home Depot	655	224	570	339	447 (224 - 655)
	Lowe's	1020	680	520	540	690 (520 - 1020)
Boston, MA	Home Depot	585	89	110	18	201 (18 - 585)
Chicago, IL	Home Depot	50	215	282	72	155 (50 - 282)
Denver, CO	Home Depot	103	N/A	N/A	N/A	103 (103 - 103)
Detroit, MI	Home Depot	251	241	785	100	344 (100 - 785)
Houston, TX	Home Depot	123	239	116	131	152 (116 - 239)
	Lowe's	61	182	52	70	91 (52 - 182)
Minneapolis, MN	Home Depot	154	54	94	175	119 (54 - 175)
Missoula, MT	Home Depot	N/A	361	200	206.5	256 (200 - 361)
Omaha, NE	Home Depot	60	48	79	97	71 (48 - 97)
Philadelphia, PA	Home Depot	36	33	76	27	43 (27 - 76)
	Lowe's	78	218	24	390	178 (24 - 390)
San Francisco, CA	Home Depot	243	575	685	N/A	501 (243 - 685)
Seattle, WA	Home Depot	307	620	256	65	312 (65 - 620)
	Lowe's	131	380	252	N/A	254 (131 - 380)
Washington, DC	Home Depot	60	242	104	348	189 (60 - 348)
	Lowe's	118	145	209	67	135 (67 - 209)
<b>National Average</b>		<b>237</b>	<b>267</b>	<b>260</b>	<b>176</b>	<b>247</b>
<b>National Range</b>		<b>36 - 1020</b>	<b>33 - 680</b>	<b>24 - 785</b>	<b>18 - 540</b>	<b>18-1020</b>

\*Size of a single handprint of a 4-year-old is about 100 cm<sup>2</sup>, calculated as one-quarter of the surface area of the hands, based on EPA body surface area data  
N/A – wood or test result not available

Arsenic treated lumber could significantly compound risks from arsenic contaminated drinking water. In its latest examination of arsenic toxicity, the National Academy of Sciences' (NAS's) National Research Council found that long-term arsenic exposures at EPA's proposed 10 micrograms a day translate into a 1 in 300 risk of lung or bladder cancer (NRC 2001). On average, our samplers easily wiped 25 times this amount (247 micrograms of arsenic) off the surface of arsenic treated lumber from Home Depot or Lowe's,

**Figure 2: Average arsenic levels found on arsenic treated lumber in 13 U.S. cities.**



**Sampler swipes arsenic treated wood as part of the national retail testing program.**

in an area the size of a four-year-old's hand. For children who regularly play on swing sets and decks made from arsenic treated wood, an equivalent of about one child in every grade school would develop lung or bladder cancer later in life.

### Store Locations

San Francisco testers purchased lumber at:

The Home Depot  
3838 Hollis St.  
Emeryville CA

# Arsenic-treated lumber testing results from The Home Depot and Lowe's Home Improvement Warehouse Retail Testing Program

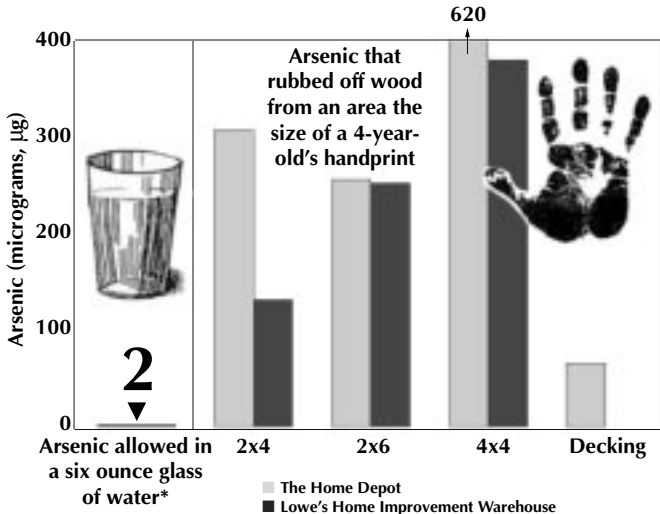
## Arsenic in Lumber – Seattle, WA

### Arsenic in lumber from Home Depot and Lowe's in Seattle

Go to any Home Depot or Lowe's and you will find aisle after aisle stacked floor to ceiling with insect resistant lumber soaked in arsenic. This wood is sold to homeowners and contractors who use it to build patios, decks, furniture, swing sets, picnic tables, and other outdoor structures. Scores of studies now show that arsenic from the wood rubs off onto hands and clothes, and that children can get especially high doses of arsenic because of the simple fact that they play on the wood and then put their hands in their mouths much more often than an average adult. Some toddlers mouth the wood, and other children get arsenic laced wood splinters embedded in their hands. As an acute poison and powerful carcinogen, arsenic is banned for all other pesticide uses, but wood treatment has a special exemption under federal law.

A nationwide investigation of stores in 13 U.S. cities by a coalition of U.S. public interest groups<sup>†</sup> found that Home Depot and Lowe's sell millions of board feet of "pressure treated" (arsenic treated) wood that exposes children to harmful levels of arsenic. In spite of their much ballyhooed consumer education program, Home Depot and Lowe's fail to warn parents about the dangers of arsenic in the wood they sell.

**Figure 1: An area the size of a four-year-old's handprint has enough arsenic to contaminate 300 glasses of water.**



**Table 1: Testing results from Home Depot and Lowe's Home Improvement Warehouse in Seattle, WA.**

Wood tested	The Home Depot	Lowe's Home Improvement Warehouse	Range in 13 Cities
Arsenic that rubbed off of wood from an area the size of a 4-year old's handprint* (µg)			
2x4 Decks and playsets – posts, rail caps, benches	307	131	(36-1020)
4x4 Support posts for decks and playsets	620	380	(33-680)
2x6 Picnic tables tops, some playsets and deck rail caps	256	252	(24-785)
Decking Most common wood for deck surfaces (5/4" x 6")	65	N/A	(18-540)

*\*Size of a single handprint of a 4-year-old is about 100 cm<sup>2</sup>, calculated as one-quarter of the surface area of the hands, based on EPA body surface area data  
N/A – wood or test result not available*

Healthy Building Network in Seattle tested four standard types of wood at Home Depot and Lowe's, and found high amounts of arsenic on the surface of the wood. The maximum amount that rubbed off was 620 micrograms from an area the size of the palm of a four year old. This is equivalent to the arsenic in more than 300 child-sized glasses of water (six ounces each) polluted up to the maximum arsenic contamination level allowed under Environmental Protection Agency's (EPA) new proposed drinking water standard (10 micrograms of arsenic per liter of water).

### How dangerous is arsenic?

Arsenic is on EPA's very short list of chemicals known without question to cause cancer in humans. The National Academy of Sciences (NAS) and its National Research Council, which have now produced seven reports addressing arsenic, have concluded multiple times that arsenic causes lung, bladder, and skin cancer in humans, and may also cause other cancers including kidney, prostate, and nasal passage cancer. NAS and EPA's Science Advisory Board (SAB) also have concluded that arsenic may cause high blood pressure, cardiovascular disease, and diabetes.

*\* At EPA's new proposed standard for arsenic in drinking water (10 µg/L), there are 2 µg of arsenic in a 6 ounce glass of water*

*† Clean Water Action/Clean Water Fund, Clean Water Fund of North Carolina, Environmental Working Group, Generation Green, Healthy Building Network, Washington Toxics Coalition, and Women's Voices for the Earth*

**Table 2: Testing results from The Home Depot and Lowe’s Home Improvement Warehouse in 13 cities across the United States.**

Wood Tested		2x4	4x4	2x6	Decking	All Woods
Arsenic that rubbed off of wood from an area the size of a 4-year old’s handprint* (µg)						
Asheville, NC	Home Depot	655	224	570	339	447 (224 - 655)
	Lowe's	1020	680	520	540	690 (520 - 1020)
Boston, MA	Home Depot	585	89	110	18	201 (18 - 585)
Chicago, IL	Home Depot	50	215	282	72	155 (50 - 282)
Denver, CO	Home Depot	103	N/A	N/A	N/A	103 (103 - 103)
Detroit, MI	Home Depot	251	241	785	100	344 (100 - 785)
Houston, TX	Home Depot	123	239	116	131	152 (116 - 239)
	Lowe's	61	182	52	70	91 (52 - 182)
Minneapolis, MN	Home Depot	154	54	94	175	119 (54 - 175)
Missoula, MT	Home Depot	N/A	361	200	206.5	256 (200 - 361)
Omaha, NE	Home Depot	60	48	79	97	71 (48 - 97)
Philadelphia, PA	Home Depot	36	33	76	27	43 (27 - 76)
	Lowe's	78	218	24	390	178 (24 - 390)
San Francisco, CA	Home Depot	243	575	685	N/A	501 (243 - 685)
Seattle, WA	Home Depot	307	620	256	65	312 (65 - 620)
	Lowe's	131	380	252	N/A	254 (131 - 380)
Washington, DC	Home Depot	60	242	104	348	189 (60 - 348)
	Lowe's	118	145	209	67	135 (67 - 209)
<b>National Average</b>		<b>237</b>	<b>267</b>	<b>260</b>	<b>176</b>	<b>247</b>
<b>National Range</b>		<b>36 - 1020</b>	<b>33 - 680</b>	<b>24 - 785</b>	<b>18 - 540</b>	<b>18-1020</b>

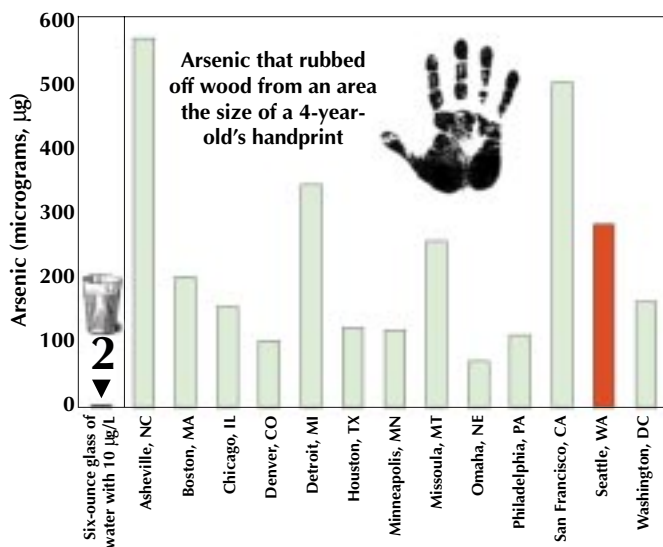
\*Size of a single handprint of a 4-year-old is about 100 cm<sup>2</sup>, calculated as one-quarter of the surface area of the hands, based on EPA body surface area data  
N/A – wood or test result not available

Arsenic treated lumber could significantly compound risks from arsenic contaminated drinking water. In its latest examination of arsenic toxicity, the National Academy of Sciences’ (NAS’) National Research Council found that long-term arsenic exposures at EPA’s proposed 10 micrograms a day translate into a 1 in 300 risk of lung or bladder cancer (NRC 2001). On average, our samplers easily wiped 25 times this amount (247 micrograms of arsenic) off the surface of arsenic treated lumber from Home Depot or Lowe’s,



**Sampler swipes arsenic treated wood as part of the national retail testing program.**

**Figure 2: Snapshot of average arsenic levels found on arsenic treated lumber in 13 U.S. cities.**



in an area the size of a four-year-old’s hand. For children who regularly play on swing sets and decks made from arsenic treated wood, an equivalent of about one child in every grade school would develop lung or bladder cancer later in life.

**Store Locations**

Seattle testers purchased lumber at these stores:

The Home Depot  
11616 Aurora N  
Seattle, WA 98133

Lowe’s Home Improvement Warehouse  
12525 Aurora N  
Seattle, WA 98133

# Arsenic-treated lumber testing results from The Home Depot and Lowe's Home Improvement Warehouse Retail Testing Program

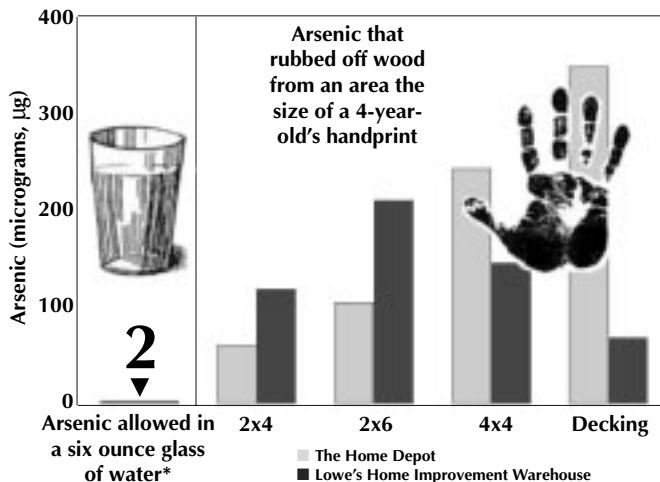
## Arsenic in Lumber – Washington, DC

### Arsenic in lumber from Home Depot and Lowe's in Washington, DC

Go to any Home Depot or Lowe's and you will find aisle after aisle stacked floor to ceiling with insect resistant lumber soaked in arsenic. This wood is sold to homeowners and contractors who use it to build patios, decks, furniture, swing sets, picnic tables, and other outdoor structures. Scores of studies now show that arsenic from the wood rubs off onto hands and clothes, and that children can get especially high doses of arsenic because of the simple fact that they play on the wood and then put their hands in their mouths much more often than an average adult. Some toddlers mouth the wood, and other children get arsenic laced wood splinters embedded in their hands. As an acute poison and powerful carcinogen, arsenic is banned for all other pesticide uses, but wood treatment has a special exemption under federal law.

A nationwide investigation of stores in 13 U.S. cities by a coalition of U.S. public interest groups<sup>†</sup> found that Home Depot and Lowe's sell millions of board feet of "pressure treated" (arsenic treated) wood that exposes children to harmful levels of arsenic. In spite of their much ballyhooed consumer education program, Home Depot and Lowe's fail to warn parents about the dangers of arsenic in the wood they sell.

**Figure 1: An area the size of a four-year-old's handprint has enough arsenic to contaminate 150 glasses of water.**



**Table 1: Testing results from Home Depot and Lowe's Home Improvement Warehouse in Washington, DC.**

	The Home Depot	Lowe's Home Improvement Warehouse	Range in 13 Cities
<b>Wood tested</b>	Arsenic that rubbed off of wood from an area the size of a 4-year old's handprint* (µg)		
<b>2x4</b> Decks and playsets – posts, rail caps, benches	60	118	(36-1020)
<b>4x4</b> Support posts for decks and playsets	242	145	(33-680)
<b>2x6</b> Picnic tables tops, some playsets and deck rail caps	104	209	(24-785)
<b>Decking</b> Most common wood for deck surfaces (5/4" x 6")	348	67	(18-540)

*\*Size of a single handprint of a 4-year-old is about 100 cm<sup>2</sup>, calculated as one-quarter of the surface area of the hands, based on EPA body surface area data  
N/A – wood or test result not available*

Environmental Working Group in Washington, DC tested four standard types of wood at Home Depot and Lowe's, and found high amounts of arsenic on the surface of the wood. The maximum amount that rubbed off was 348 micrograms from an area the size of the palm of a four year old. This is equivalent to the arsenic in more than 150 child-sized glasses of water (six ounces each) polluted up to the maximum arsenic contamination level allowed under Environmental Protection Agency's (EPA) new proposed drinking water standard (10 micrograms of arsenic per liter of water).

### How dangerous is arsenic?

Arsenic is on EPA's very short list of chemicals known without question to cause cancer in humans. The National Academy of Sciences (NAS) and its National Research Council, which have now produced seven reports addressing arsenic, have concluded multiple times that arsenic causes lung, bladder, and skin cancer in humans, and may also cause other cancers including kidney, prostate, and nasal passage cancer. NAS and EPA's Science Advisory Board (SAB) also have concluded that arsenic may cause high blood pressure, cardiovascular disease, and diabetes.

\* At EPA's new proposed standard for arsenic in drinking water (10 µg/L), there are 2 µg of arsenic in a 6 ounce glass of water

† Clean Water Action/Clean Water Fund, Clean Water Fund of North Carolina, Environmental Working Group, Generation Green, Healthy Building Network, Washington Toxics Coalition, and Women's Voices for the Earth

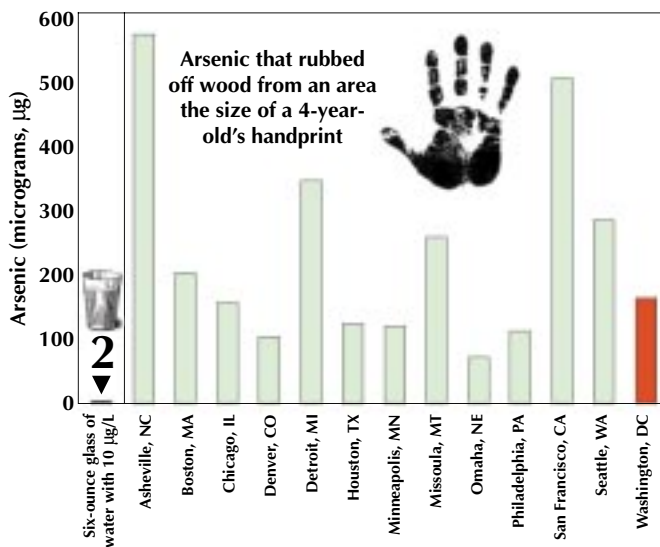
**Table 2: Testing results from The Home Depot and Lowe’s Home Improvement Warehouse in 13 cities across the United States.**

Wood Tested		2x4	4x4	2x6	Decking	All Woods
Arsenic that rubbed off of wood from an area the size of a 4-year old’s handprint* (µg)						
Asheville, NC	Home Depot	655	224	570	339	447 (224 - 655)
	Lowe's	1020	680	520	540	690 (520 - 1020)
Boston, MA	Home Depot	585	89	110	18	201 (18 - 585)
Chicago, IL	Home Depot	50	215	282	72	155 (50 - 282)
Denver, CO	Home Depot	103	N/A	N/A	N/A	103 (103 - 103)
Detroit, MI	Home Depot	251	241	785	100	344 (100 - 785)
Houston, TX	Home Depot	123	239	116	131	152 (116 - 239)
	Lowe's	61	182	52	70	91 (52 - 182)
Minneapolis, MN	Home Depot	154	54	94	175	119 (54 - 175)
Missoula, MT	Home Depot	N/A	361	200	206.5	256 (200 - 361)
Omaha, NE	Home Depot	60	48	79	97	71 (48 - 97)
Philadelphia, PA	Home Depot	36	33	76	27	43 (27 - 76)
	Lowe's	78	218	24	390	178 (24 - 390)
San Francisco, CA	Home Depot	243	575	685	N/A	501 (243 - 685)
Seattle, WA	Home Depot	307	620	256	65	312 (65 - 620)
	Lowe's	131	380	252	N/A	254 (131 - 380)
Washington, DC	Home Depot	60	242	104	348	189 (60 - 348)
	Lowe's	118	145	209	67	135 (67 - 209)
<b>National Average</b>		<b>237</b>	<b>267</b>	<b>260</b>	<b>176</b>	<b>247</b>
<b>National Range</b>		<b>36 - 1020</b>	<b>33 - 680</b>	<b>24 - 785</b>	<b>18 - 540</b>	<b>18-1020</b>

\*Size of a single handprint of a 4-year-old is about 100 cm<sup>2</sup>, calculated as one-quarter of the surface area of the hands, based on EPA body surface area data  
N/A – wood or test result not available

Arsenic treated lumber could significantly compound risks from arsenic contaminated drinking water. In its latest examination of arsenic toxicity, the National Academy of Sciences’ (NAS’) National Research Council found that long-term arsenic exposures at EPA’s proposed 10 micrograms a day translate into a 1 in 300 risk of lung or bladder cancer (NRC 2001). On average, our samplers easily wiped 25 times this amount (247 micrograms of arsenic) off the surface of arsenic treated lumber from Home Depot or Lowe’s,

**Figure 2: Average arsenic levels found on arsenic treated lumber in 13 U.S. cities.**



**Sampler swipes arsenic treated wood as part of the national retail testing program.**

in an area the size of a four-year-old’s hand. For children who regularly play on swing sets and decks made from arsenic treated wood, an equivalent of about one child in every grade school would develop lung or bladder cancer later in life.

**Store Locations**

Washington, DC testers purchased lumber at these stores:

The Home Depot  
15740 Shady Grove Road  
Gaithersburg, MD 20877

Lowe’s Home Improvement Warehouse  
205 Kentlands Blvd  
Gaithersburg, MD 20878

# Corporate Responsibility – Actions Speak Louder Than Words

*At your Home Depot, you can count on us to be actively involved in pursuing environmental excellence through our stores and our vendors. . . . From our progressive consumer education programs, to our commitment to carry certified “green” products, we’re dedicated to making a positive environmental impact every day.*

— www.homedepot.com, “Environment,” September 2001

*Lowe’s Home Safety Council is reminding homeowners to make sure their backyard play equipment is safe for children. “ . . . [P]arents should do a safety assessment of their backyard playgrounds,” said David Oliver, executive director.*

– Lowe’s press release, March 28, 2001

The Home Depot and Lowe’s Home Improvement Warehouse are the twin giants of the retail home improvement industry. Between them, the two chains operate more than 1,700 stores and open new outlets almost every day. Home Depot, based in Atlanta, is the third-largest retailer of any type in the U.S., with annual sales of more than \$45 billion. Lowe’s, of Wilkesboro, N.C., ranks fourteenth, with annual sales exceeding \$18 billion.

Both companies tout their commitment to environmental and social responsibility. Home Depot is “committed to improving the environment by selling products that are manufactured, packaged and labeled in a responsible manner.” (Home Depot 2001.) Lowe’s gives money to “projects that enhance the natural environment” because the company wants to “make our neighborhoods better places to live.” (Lowe’s 2001.)

Actions, however, speak louder than words. A nationwide investigation by the Environmental Working Group (EWG), the Healthy Building Network (HBN) and others found that both Lowe’s and Home Depot sell millions of board feet of “pressure-treated” wood that expose children to harmful levels of arsenic, and fail to adequately warn customers of the danger.

**Lowe’s and Home Depot sell millions of board feet of “pressure-treated” wood that expose children to harmful levels of arsenic, and fail to adequately warn customers of the danger.**

One of the Home Depot stores in this program displays a giant sign declaring “CCA Treated Lumber is Safe!”, yet a recent Home Depot circular pushed plastic fencing as an “environmentally friendly” alternative with “no arsenic, creosote, etc. which can be harmful to children and animals.” (see Figure 3). These competing, misleading and inherently conflicting advertisements place children at risk.

Despite a voluntary consumer awareness program, much touted by the treated-wood industry, that is intended to let buyers of CCA lumber know it contains arsenic and to warn them of the risks, the information Home Depot and Lowe’s provide customers is at best inadequate and often incorrect.

None of the 13 nationwide volunteers who bought wood at Lowe’s or Home Depot for this retail lumber testing program were offered consumer safety information sheets at the time of purchase. Even when customers asked for the safety sheets, they were often not available. According to retailers, some stores will begin to display the safety information more prominently starting sometime this fall, but the proposed “safety” language hammered out by EPA and the wood industry gives no tips to the public on how to reduce exposures to arsenic, and particularly children’s exposures, from routine contact with structures made with arsenic treated wood.

Lowe’s and Home Depot sell do-it-yourself kits for building backyard playsets, which are much less expensive than premanufactured playsets. These kits, such as the Swing ‘n’ Slide brand sold at both chains, contain slides, swings, hardware and assembly instructions but leave it to consumers to purchase, cut and assemble the lumber themselves. When volunteer testers from this sampling program expressed interest in purchasing a Swing ‘n’ Slide kit at Lowe’s, salespeople did not discuss any options available for wood, but directed the customers to wood treated with arsenic. Some salespeople specifically recommended arsenic-treated lumber to customers who made it clear that children would be exposed to the wood.

Similar experiences have been reported recently by journalists who went shopping for wood in California, Texas, Florida, Virginia and Ohio. (Miller 2001, Cummings 2001.) One reporter was told by a Lowe’s salesperson that arsenic had been taken out of pressure-treated lumber years ago. (Cummings 2001.)

Test results from samples of 2x4s, 2x6s, 4x4s and decking (5/4 x 6) at 13 Home Depot and 5 Lowe’s stores in 13 metropolitan areas showed that arsenic treated lumber sold at both chains presents unacceptably high cancer risk to children. The average level of arsenic detected on the treated wood surface (247 ug in an area the size of a four-year-old’s hand) could easily expose a child to more than the 10 µg daily dose deemed “safe” for an adult by the EPA.

**Figure 3. Home Depot playing both sides of the fence. Is arsenic safe, or is it harmful to children and animals?**

**CCA Treated Lumber Is Safe!**

"Based on our evaluation, EPA has no risk concerns to public health, even children, from the use of pressure treated wood"

US Environmental Protection Agency

"Treated wood offers substantial benefits to consumers and poses no known health hazard. Sound scientific research attests to (CCA treated wood's) safety."

Dr. Elizabeth Whelan, President, American Council On Science and Health

"The safety record of CCA-treated wood is impeccable."

Dr. Gaylord Lopez, Director, Georgia Poison Control Center

"There is no evidence that normal exposure to CCA-treated wood presents any type of increased health risk."

Dr. Alan H. Hall, Board Certified Medical Toxicologist

**CCA, the main component of our Pressure Treated Lumber has been proven safe and effective for over 60 years!**

**Large hanging sign photographed by a sampler in Grand Rapids, Michigan Home Depot, Summer 2001**

**Home Depot newspaper circular in the Seattle Times, Summer 2001**

**\$87<sup>32</sup>**  
**6'x6' Lattice Top Fence**

- White
- Easy installation
- Never needs painting or staining with harmful chemicals
- Will not rot, peel, pit, blister, rust, flake, corrode or be consumed by insects
- Child and animal safe!
- No splinters or exposed nails!
- Environmentally friendly (no arsenic, creosote, etc. which can be harmful to children and animals)

Per Linear Foot ..... **\$14.55**  
 (727184\_276521\_277989)

Source: Environmental Working Group. Compiled from Home Depot newspaper circulars and pictures taken at Home Depot.

EWG and HBN urge Home Depot and Lowe's to take the lead in getting rid of arsenic-treated wood. The market dominance of Home Depot and Lowe's ensures that if the chains demand arsenic-free wood, suppliers will meet their demands and the market for arsenic treated wood will shrink dramatically, accelerating a nationwide phaseout of this dangerous product. Waiting for the federal regulatory process to lumber to a conclusion is an equally unacceptable option.

Until the phaseout is achieved, at a minimum these giant retailers should promote non-toxic alternatives and aggressively provide customers with information allowing them to make better choices

# References

Cummings, J. 2001. Handle treated wood with care. Chicago Tribune. August 24.

Environmental Protection Agency. 2000. Estimated Per Capita Water Ingestion in the United States. Office of Water. Washington D.C. EPA 822-R-00-008. April 2000.

Environmental Protection Agency (EPA). 2001. Background document for Oct 23-25 Scientific Advisory Panel meeting. Children's Exposure to CCA-Treated Wood Playground Equipment and CCA-Contaminated Soil. Downloaded in October 2001 from <http://www.epa.gov/scipoly/sap/index.htm>.

Environmental Working Group. 2001. Presentation to the Environmental Protection Agency's Scientific Advisory Panel. Monte Carlo Risk Analysis of Children's Exposures to Arsenic Treated Wood. October 23, 2001.

Home Depot. 2001. [www.homedepot.com](http://www.homedepot.com)

Lowes. 2001. [www.lowes.com](http://www.lowes.com)

National Research Council (NRC). 2001. Arsenic in drinking water: 2001 update. Prepublication copy. Subcommittee to update the 1999 arsenic in drinking water report, Committee on toxicology, Board on environmental studies and toxicology, Division on earth and life studies. National Research Council. National Academy Press, Washington, D.C. September 2001.

Miller, A. 2001. Fight over arsenic in lumber focuses on public awareness. Los Angeles Times. April 13.

# Appendix

## Sampling Methodology

### **Method for field collection of dislodgeable arsenic using wet wipe sampling for arsenic determination by atomic spectrometry techniques**

#### **Scope**

This method covers the collection of dislodgeable arsenic on pressure-treated wood surfaces using a wet wipe sampling method. The method is based on ASTM E 1728-99 (American Society for Testing and Materials Method E 1728-99, “Standard Practice for Field Collection of Settled Dust Samples Using Wipe Sampling Methods for Lead Determination by Atomic Spectrometry Techniques”).

#### **Summary of method**

Wipe sample of dislodgeable arsenic is collected from pressure-treated wood surface of known dimensions with moistened disposable towellete using a specified pattern of wiping.

Use of different pressures applied to the sampled surface result in collection variability from sample to sample. This is intended to, in some part, capture variability in the ways people contact the wood incidentally during everyday activities on decks, play structures, picnic tables, and other structures built of arsenic-treated wood.

#### **Supplies needed for a single sample**

- 2 pair Latex gloves (non-powdered)
- 4"x4" AlphaWipes (Texwipe brand Cleanroom Wiper; dry synthetic polyester)
- 1, 4-ounce Nalgene Narrow-Mouth HDPE Sample Bottle, filled with distilled water
- 1 cardboard or plastic template, 100 cm<sup>2</sup> opening in the center
- 1 Zip-Loc bag
- 1 permanent marker

## Summary

Sample any structure built of wood treated with copper chromated arsenate (CCA) – e.g., deck, playground structure, picnic table, or patio furniture – by:

- Wiping a polyester wipe *in a very specific fashion* on the wood surface
- Creating a field blank sample
- Creating a control blank sample for every set of sampling supplies

## Preventing cross contamination

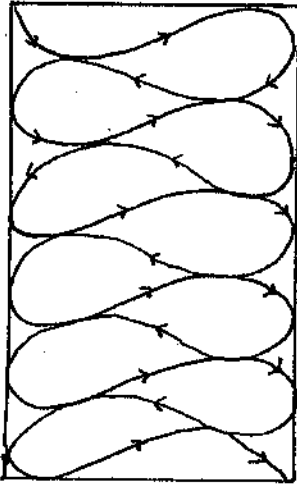
To ensure a representative sample, procedures should be followed to avoid cross contamination of the AlphaWipes and Latex gloves with arsenic from hands and wood originating from areas outside the designated sampling area. The following procedures are used to minimize the opportunity for cross contamination:

1. Always have Latex gloves on when handling the AlphaWipes.
2. Do not let the Latex gloves touch the wood. If during the sampling procedures, handling the wood is necessary, remove the sampling gloves and place them in a new ZipLoc bag until sampling procedures are resumed.
3. When putting the gloves on, avoid contacting the outside palm area of the Latex gloves with your hands, as arsenic present on the surface of the hands could contaminate the gloves.
4. When collecting more than one sample, a new pair of Latex gloves should be used for each new area to be sampled.

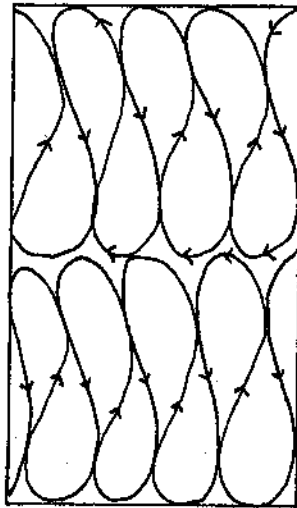
## Sampling procedures

1. Carefully place a clean template on the wood surface in a manner that minimizes disturbance of dislodgeable particles. Tape the outside of the template to the wood surface to prevent the template from moving during sample collection.
2. With Latex gloves on, PLACE ONE ALPHAWIPE in a new, clean, empty Zip-Loc bag.
3. ADD 3/4 capfuls of distilled water to the Zip-Loc. (This amount of water was found through experimentation to be sufficient to sufficiently moisten a single wipe.)
4. Manipulate the Zip-Loc bag and the wipe inside until the wipe is EVENLY MOISTENED.
5. Remove and UNFOLD the wipe.
6. WIPE the area outlined by the template in an overlapping “S” pattern while applying steady, even pressure to the fingertips. (See Figure 1 for wiping pattern.)
7. REMOVE any splinters embedded in the wipe.
8. FOLD the wipe in half with the sampled side folded in.

**Figure 1**



**Figure 2**



9. WIPE the area outline by the template again. This time, wipe in a direction 90 degrees rotated from the previous wiping pattern. (See Figure 2 for wiping pattern.)
10. REMOVE any splinters embedded in the wipe
11. FOLD the wipe in half again, with the sampled side folded in.
12. WIPE the corners of the open template area.
13. REMOVE any splinters embedded in the wipe
14. FOLD the wipe a final time, with the sampled side folded in.
15. PLACE in an empty, clean, new Zip-Loc bag, and seal the bag.
16. LABEL THE BAG with sample number and date, using permanent marker.
17. RECORD in field sampling notes information on the type of wood tested, the date, samplers name, sample location, weather conditions, date of last rainfall, and pertinent details about the structure (age, date last sealed, type of sealant used, frequency of sealant throughout the life of the structure, general condition of the wood, condition of paint if structure is painted, etc).

## **Control sample**

A control sample is designed to measure the maximum amount of arsenic that could be present as contamination in the sampling equipment. For each unique batch of sampling equipment (i.e., package of gloves and Alphawipes, package of Zip-Loc bags, template material, distilled water bottle, and pen) create one control sample using the following procedure:

1. Thoroughly moisten an AlphaWipe in distilled water as described in Steps 1 through 4 of the above sampling procedure.
2. Use AlphaWipe to thoroughly CLEAN a smooth, flat surface not made of arsenic-treated lumber (i.e., a desk or kitchen counter).
3. Dispose of wipe and Zip-Loc bag.
4. Perform steps 1 through 17 in sampling procedures above, but sample the non-CCA treated surface you have just cleaned.

## **Field blank**

A field blank sample is created for each sampling location to measure the amount of arsenic that could potentially be the result of sampling cross contamination or that is present in the sampling materials from sources other than dislodgeable residue on the wood. To create a field blank sample, perform steps 2, 3, 15, 16, and 17 above. (Essentially, wet a wipe and place it in a ZipLoc bag for subsequent analysis, without wiping a surface.)

## **Sample analysis**

Samples are analyzed according to EPA Method 7060A (Atomic Absorption, Furnace Technique). Wipe is digested according to USEPA SW-846 Method 3050 (nitric acid and hydrogen peroxide digestion). The small amount of arsenic residue possibly lost from the wipe onto the Ziploc bag prior to analysis is not recovered, so method may underestimate arsenic originally present on the sample.



Environmental Working Group  
1718 Connecticut Avenue, N.W. Suite 600  
Washington, D.C. 20009



Healthy Building Network  
2425 18th Street, NW  
Washington, D.C. 20009