

# Healthy Building News

## The "New Shower Curtain Smell" May Be Toxic to Your Health



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July 1, 2008

A new analysis conducted by two independent laboratories finds that 6 hours after opening a common vinyl shower curtain, it would load a typical bathroom with volatile organic compounds (VOCs) over 16 times the guidelines for indoor air quality established by the U.S. Green Building Council and the Washington State Indoor Air Quality Program, and would continue to violate these guidelines for another week.[1]

This new study, [Volatile Vinyl - The New Shower Curtain's Chemical Smell](#), found one new PVC shower curtain can release into the air over 100 different VOCs -- chemicals that can cause cancer; damage the liver and central nervous, respiratory, and reproductive systems. The US EPA classifies seven of the chemicals released as hazardous air pollutants.

The results are consistent with previous testing conducted by the U.S. EPA, which found one new vinyl shower curtain can release "elevated indoor air toxics

concentrations...for more than a month".[2] They also reinforce [a study by the California Air Resources Board](#) analyzing forty target compounds off-gassing from PVC flooring. Some of the chemicals detected were the very same chemicals to off-gas from PVC shower curtains in the new Volatile Vinyl study.

These new results have some experts sounding the alarm. According to Dr. David Carpenter, M.D., of the Institute for Health & the Environment at the University at Albany, "The brain is a major target for VOCs, causing everything from headache and loss of concentration to learning disabilities in children whose mothers were exposed before their birth, as shown in a recent Canadian study. Since there are safer alternatives to vinyl shower curtains, such exposures should always be avoided."

This study contributes to the growing body of evidence linking PVC building products and negative health impacts. A number of studies have suggested a correlation between [PVC building products containing phthalates and asthma](#). Most recently, a study published in 2008 found an association between concentrations of the phthalate DEHP in indoor dust and wheezing among preschool children. Another study found that adults working in rooms with plastic wall coverings were more than twice as likely to develop asthma.

The U.S. Green Building Council's [final report on PVC](#) found, "When we add end of life with accidental landfill fires and backyard burning, the additional risk of dioxin emissions puts PVC consistently among the worst materials for human health impacts..."

The good news is safer products are widely available -- leading retailers including Target, Bed Bath & Beyond, JCPenneys, Sears Holdings (Sears and Kmart), and Macy's are transitioning out of PVC to safer products such as EVA plastic, just like the European retailer Ikea did over 10 years ago.

Of course, the Vinyl Institute has argued PVC shower curtains are perfectly safe, stating, "Decades of research and use prove that shower curtains made of vinyl are safe," but interestingly have yet to publicly disclose their "decades of research" conducted on PVC shower curtains.[3]

The Center for Health, Environment and Justice is asking national retailers and the Consumer Product Safety Commission to take action to protect consumers from the avoidable risks associated with PVC shower curtains. [Click here to add your voice to ours.](#)

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## **Footnotes**

[1] The Center for Health, Environment and Justice (CHEJ) purchased PVC shower curtains at Bed Bath & Beyond, Kmart, Sears, Target and Wal-Mart to be used as samples for the testing. Phase one of the study measured the concentration of several hazardous chemicals in five of the PVC curtains present at the point of consumer purchase. Phase two measured the concentration of volatile organic compounds (VOCs) which continue to evaporate from a shower curtain up to twenty-eight days after a consumer hangs it in the household. The number of potentially harmful chemicals and the longevity of time over which several of them remain present in the air are alarming. To read the full report including tabulated results, methodology, safer alternatives, recommendations, visit:

<http://www.chej.org/showercurtainreport>.

[2] Chang, J.C.S., Fortmann, R. and N. Roache. 2002. Air toxics emissions from a vinyl shower curtain. Proceedings: Indoor Air 542-547. See also, Wallace, L.A. et al. 1991. Identification of polar volatile organic compounds in consumer products and common microenvironments. Paper presented at the annual meeting of the Air and Waste Management Association, June 9.

[3] Vinyl Institute. "Shower Curtains Declared Harmless." June 12, 2008 press release.  
<http://www.vinylinstitute.org/VinylintheNews/ShowerCurtainsDeclaredHarmless.aspx>