

# Greenlist Bulletin

From the Toxics Use Reduction Institute  
at the University of Massachusetts Lowell

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## Opportunities for Cancer Prevention: Trends in the Use and Release of Carcinogens in Massachusetts

[Source: Toxics Use Reduction Institute, June 7, 2013](#)

Authors: Molly Jacobs, Heather Tenney, Rachel Massey, & Liz Harriman

Toxics Use Reduction (TUR) is a powerful tool for cancer prevention. TUR emphasizes reducing the use of cancer causing chemicals by improving manufacturing processes and adopting safer alternatives. . . .

This report draws on 20 years of data collected from industries reporting to the Massachusetts Toxic Use Reduction Act program to assess trends in the use and release of chemicals associated with cancer. The analysis shows that reported use and releases of carcinogens among Massachusetts companies have decreased dramatically over time. Reported use declined 32% from 1990 to 2010, and reported releases declined 93% from 1991 to 2010.

[Read more...](#)

This report is part of the Institute's series on Toxics Use Reduction and Disease Prevention. Other publications in this series include *Asthma-Related Chemicals in Massachusetts: An Analysis of Toxics Use Reduction Data* (2009) and *TUR and Disease Prevention Fact Sheet: Asthma* (2012).

## Formaldehyde Emissions from Composite Wood Products

[Source: U.S. Environmental Protection Agency, May 29, 2013](#)

The EPA proposed two rules aimed at protecting the public from the risks associated with exposure to formaldehyde. The first proposal would implement formaldehyde emission standards under TSCA Title VI, and would apply to hardwood plywood, medium-density fiberboard, particleboard, and finished goods containing these products that are sold, supplied, offered for sale, or manufactured (including imported) in the United States.

The second proposal would establish a framework for a third-party certification program to ensure that composite wood panel producers comply with the formaldehyde emission limits established under TSCA Title VI.

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### Nontoxic Solvents Extract Compounds From Plants

[Source: \*Chemical & Engineering News\*, June 6, 2013](#)

Author: Olga Kuchment

A new class of cheap, nontoxic solvents made from cellular soups can extract compounds from plants for use in foods, cosmetics, or pharmaceuticals, according to a new study. The solvents could offer an environmentally friendly way to isolate the plant compounds without the need for toxic organic solvents.

Young Hae Choi, a natural products chemist at Leiden University in the Netherlands, and his coworkers discovered these new solvents while studying metabolites found in cells. The researchers realized that some mixtures of metabolites possessed the characteristics of good solvents, such as having the ability to form hydrogen bonds, no reactivity with water, low vapor pressures, and low melting points.

[Read more...](#)

Read original article in *Analytical Chemistry*, "[Natural Deep Eutectic Solvents as a New Extraction Media for Phenolic Metabolites in \*Carthamus tinctorius\* L.](#)"

Also read article in *Plant Physiology*, "[Are Natural Deep Eutectic Solvents the Missing Link in Understanding Cellular Metabolism and Physiology?](#)"

### EPA and NIH Announce the Winning Team in My Air, My Health Challenge / Winners developed a low cost, real time personal digital device that measures health effects of harmful air pollution

[Source: U.S. Environmental Protection Agency, June 4, 2013](#)

WASHINGTON -- Today the U.S. Environmental Protection Agency (EPA) and the National Institutes of Health (NIH) announced the winner of the My Air, My Health Challenge. The Challenge called upon innovators nationwide to design a small, low-cost sensor that integrates air quality measurements with related health data, such as heart rate and breathing. Such innovations will help EPA and NIH as they continue their work together to better understand, in real time, the impacts of harmful air pollution on people's health. . . .

The winning team will receive a \$100,000 award for developing Conscious Clothing, a wearable, real-time breathing analysis tool that calculates the amount of polluted air a person inhales. Estimates of pollution exposure result from how deeply the person breathes and how much pollution is in the air. This data is transmitted to any Bluetooth-enabled device, such as a cellphone.

[Read more...](#)

Also read about how the Centers for Disease Control and Prevention added additional measures to the [National Environmental Public Health Tracking Network](#).

### Design, Methods and Population for a Study of PFOA Health Effects among Highly Exposed Mid-Ohio Valley Community Residents and Workers

[Source: \*Environmental Health Perspectives\*, June 4, 2013](#)

Authors: Andrea Winquist, Cathy Lally, Hyeong-Moo Shin, & Kyle Steenland

Background: This manuscript describes a cohort that is the basis for a series of epidemiologic studies of a Mid-Ohio Valley population with substantial perfluorooctanoic acid (PFOA) exposure due to releases from a chemical plant. . . .

Results: The final combined cohort included 32,254 participants (28,541 community; 3,713 worker). Participation rates were high (community 81.5%, worker 72.9% of target population). The final population from each cohort was representative of the target population in terms of demographic characteristics and measured serum PFOA concentrations in 2005-2006. The study had a wide

exposure range and the number of reported cases of chronic diseases was high, resulting in greater power to detect associations than has been the case for many previous studies.

Conclusions: This is the largest study to date of the health effects of PFOA. The information from this cohort is being used to examine associations between PFOA exposure and multiple adult chronic diseases.

[Read more...](#)

Also read in *Environmental Health Perspectives*, "[Ulcerative Colitis and Perfluorooctanoic Acid \(PFOA\) in a Highly Exposed Population of Community Residents and Workers in the Mid-Ohio Valley.](#)"

### New safety test predicts reactions to novel drugs and cosmetics

[Source: Newcastle University, May 28, 2013](#)

A simple lab-based skin test which eliminates the risk of adverse reactions to new drugs, cosmetics and household chemicals has been developed by a Newcastle University team.

It uses real human skin and immune cells to show any reaction such as a rash or blistering indicating a wider immune response within the body.

The development is timely as it offers a reliable alternative for the cosmetic industry as a ban on the sale of any cosmetic product tested on animals came into effect across Europe in March.

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