

This is the bi-weekly bulletin of the TURI Library at the University of Massachusetts Lowell. Greenlist Bulletin provides previews of recent publications and websites relevant to reducing the use of toxic chemicals by industries, businesses, communities, individuals and government. You are welcome to send a message to mary@turi.org if you would like more information on any of the articles listed here, or if this email is not displaying properly.

First Decisions on New Chemicals Made Under Amended TSCA

Source: Bloomberg BNA - Chemical Regulation Reporter, July 25, 2016

Author: Pat Rizzuto

July 22 -- The Environmental Protection Agency issued its first regulatory decisions July 22 for new chemicals using the criteria of the amended Toxic Substances Control Act.

The EPA concluded chemical manufacturers may make or import four new chemicals, because none is "likely to present an unreasonable risk."

The four chemicals, identified by generic names, will be used in lubricants, added to plastics and used to make other chemicals including polymers.

[Read more...](#)

See the U.S. EPA [webpage](#) on The Frank R. Lautenberg Chemical Safety for the 21st Century Act.

TURI's Note: See [our page](#) on updates to the Toxic Substances Control Act (TSCA).

In This Issue

[First Decisions on New Chemicals Made Under Amended TSCA](#)

[Grinding Chemicals Together in an Effort to be Greener](#)

[Wal-Mart Asks Its Suppliers to Stop Using Eight Chemicals](#)

[Proposal to List Children's Foam-Padded Sleeping Products Containing TDCPP or TCEP as a Priority Product](#)

[Using Urban Pigeons to Monitor Lead Pollution](#)

[NAS releases report on "Health Risks of Indoor Exposure to Particulate Matter"](#)

[EPA Issues Final Rule to Protect the Public from Exposure to Formaldehyde](#)

[Environmental Nanotoxicology](#)

[NIOSH Pocket Guide to Chemical Hazards Mobile Web Application](#)

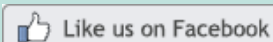
[Dry adhesive technology mimics gecko's feet](#)

[Join Our Mailing List](#)

Quick Links

[Greenlist Bulletin Archives](#)

[TURI Website](#)



Grinding Chemicals Together in an Effort to be Greener

Source: The New York Times, July 18, 2016

Author: Xiaozhi Lim

The timer started, and a middle school student named Tony Mack began his first chemistry experiment. As he weighed chemicals under a graduate student's supervision, his father, James, a chemist at the University of Cincinnati, assembled glassware next to him, engrossed in his own experiment.

The two were racing to prepare a mix of stilbene molecules used to make dyes, but were employing different methods. For Dr. Mack, the ingredients simmered in a stirred solution in a heated flask. But for Tony, they were crushed with balls that tumbled and hit them as a machine called a ball mill shook them vigorously. Tony crossed the finish line while Dr. Mack was still two hours away, and did so with about 30 percent more stilbene. ...

Conducted at Dr. Mack's laboratory in 2014, the race was designed to prove a point: that milling, or grinding chemicals together without a solvent, could outperform established methods and yet be safe and simple enough for an inexperienced eighth grader to do.

The technique, based on so-called mechanochemistry, or chemistry driven by mechanical force, is radically different from the traditional way of dissolving, heating and stirring chemicals in a solution. Removing solvents could help make many chemical processes used by industry more environmentally friendly.

[Read more...](#)

Wal-Mart Asks Its Suppliers to Stop Using Eight Chemicals

[Source: Bloomberg, July 20, 2016](#)

[Authors: Lauren Coleman-Lochner and Andrew Martin](#)

Wal-Mart Stores Inc. is asking suppliers to remove formaldehyde, triclosan and six other substances from their products, part of an effort to eliminate controversial chemicals from household goods.

The chemicals on the list include "certain properties that can affect human health or the environment," Wal-Mart said in a statement Wednesday. The world's largest retailer created the list with help from the Environmental Defense Fund, aiming to get suppliers to find alternatives, said Zach Freeze, Wal-Mart's director for strategic initiatives related to sustainability. The list was limited to eight high-priority chemicals so that Wal-Mart could make meaningful progress.

[Read more...](#)

Proposal to List Children's Foam-Padded Sleeping Products Containing TDCPP or TCEP as a Priority Product

[Source: California Department of Toxic Substances Control, July 2016](#)

The Department of Toxic Substances Control (DTSC) is seeking public comment on the listing of children's foam-padded sleeping products containing the flame retardant chemicals TDCPP and/or TCEP as a Priority Product.

DTSC proposes to amend Title 22, California Code of Regulations sections 69511 and 69511.1, by establishing a Priority Products list that includes children's foam-padded sleeping products containing tris(1,3-dichloro-2-propyl) phosphate (TDCPP) or tris(2-chloroethyl) phosphate (TCEP) as a Priority Product. ...

After a thorough review of the research, DTSC determined that children may be at risk for adverse health effects if they use or are near children's foam-padded sleeping products that contain the chemical flame retardants TDCPP or TCEP. We are proposing to list this Priority Product with the goal of reducing children's exposure to these particular

toxic chemicals.

[Read more...](#)

Also see this report from Healthy Building Network, "[Optimizing Recycling: Post-Consumer Flexible Polyurethane Foam Scrap Used In Building Products](#)".

Using Urban Pigeons to Monitor Lead Pollution

[Source: UC Davis, July 19, 2016](#)

[Author: Andy Fell](#)

"Pigeons breathe the same air, walk the same sidewalks, and often eat the same food as we do. What if we could use them to monitor possible dangers to our health in the environment, like lead pollution?" said Rebecca Calisi, now an assistant professor in the Department of Neurobiology, Physiology and Behavior at the University of California, Davis, who conducted the study with undergraduate student Fayme Cai while at Barnard College, Columbia University. The work is published July 18 in the journal *Chemosphere*.

Decades after it was banned from paint and gasoline, lead pollution remains a significant concern. The New York City Department of Health and Mental Hygiene carries out routine screening of children in areas of the city identified as hot spots for lead contamination.

[Read more...](#)

See original article in *Chemosphere*, "[Seasons and neighborhoods of high lead toxicity in New York City: The feral pigeon as a bioindicator](#)".

NAS releases report on "Health Risks of Indoor Exposure to Particulate Matter"

[Source: *The Safety Zone* by Chemical & Engineering News, July 14, 2016](#)

[Author: Jyllian Kemsley](#)

The U.S. Environmental Protection Agency (EPA) defines PM as a mixture of extremely small particles and liquid droplets comprising a number of components, including "acids (such as nitrates and sulfates), organic chemicals, metals, soil or dust particles, and allergens (such as fragments of pollen and mold spores)". The health effects of outdoor exposure to particulate matter (PM) are the subject of both research attention and regulatory action. Although much less studied to date, indoor exposure to PM is gaining attention as a potential source of adverse health effects. Indoor PM can originate from outdoor particles and also from various indoor sources, including heating, cooking, and smoking. Levels of indoor PM have the potential to exceed outdoor PM levels.

Understanding the major features and subtleties of indoor exposures to particles of outdoor origin can improve our understanding of the exposure-response relationship on which ambient air pollutant standards are based. The EPA's Indoor Environments Division commissioned the National Academies of Sciences, Engineering, and Medicine to hold a workshop examining the issue of indoor exposure to PM more comprehensively and considering both the health risks and possible intervention strategies. Participants discussed the ailments that are most affected by particulate matter and the attributes of the exposures that are of greatest concern, exposure modifiers, vulnerable populations, exposure assessment, risk management, and gaps in the science. This report summarizes the presentations and discussions from the workshop.

[Read more...](#)

EPA Issues Final Rule to Protect the Public from Exposure to Formaldehyde

[Source: U.S. Environmental Protection Agency, July 27, 2016](#)

WASHINGTON -- The U.S. Environmental Protection Agency (EPA) [today] moves to reduce exposure to formaldehyde vapors from certain wood products produced domestically or imported into the United States. The agency worked with the California Air Resources Board to help ensure the final national rule is consistent with California requirements for composite wood products.

"We are carrying out important measures laid out by Congress to protect the public from harmful exposure of this widely used chemical found in homes and workplaces", said Jim Jones, EPA's assistant administrator for the Office of Chemical Safety and Pollution Prevention. "We have worked with the state of California as a partner to help ensure consistency in our requirements. The new rule will level the playing field for domestic manufacturers who have a high rate of compliance with the California standard and will ensure that imported products not subject to California's requirements will meet the new standard and, thus, not contain dangerous formaldehyde vapors."

The Formaldehyde Emission Standards for Composite Wood Products Act of 2010 established emission standards for formaldehyde from composite wood products and directed EPA to finalize a rule on implementing and enforcing a number of provisions covering composite wood products.

One year after the rule is published, composite wood products that are sold, supplied, offered for sale, manufactured, or imported in the United States will need to be labeled as TSCA Title VI compliant. These products include: hardwood plywood, medium-density fiberboard, particleboard as well as household and other finished goods containing these products.

[Read more...](#)

Environmental Nanotoxicology

[Source: *Chemical Research in Toxicology*; *Environmental Science & Technology*; and *Environmental Science & Technology Letters*, July 2016](#)

The field of nanotechnology has expanded rapidly, entering sectors that impact all aspects of our lives. In spite of this, the general consensus among the scientific community is that our understanding of the fate and effects of engineered nanomaterials is currently inadequate to accurately assess risk. Nanotoxicology has evolved as the discipline to fill in critical gaps in understanding of the potential adverse effects of nanomaterials.

Chemical Research in Toxicology, *Environmental Science & Technology*, and *Environmental Science & Technology Letters* have compiled their key published articles in the important field of nanotoxicology in a Virtual Issue collection. We highlight papers that focus on the more environmental or ecotoxicological aspects of nanotoxicology, as well as on the influence of fundamental nanomaterial properties on toxicity. Topics include organism-specific responses in aquatic and terrestrial systems, as well as issues related to nanomaterial releases in the environment, both modeled and measured. Broader issues of appropriate experimental design and hazard assessment are also included as they have great relevance to the utility of nanotoxicology for understanding risk.

[Access full virtual issue here.](#)

NIOSH Pocket Guide to Chemical Hazards Mobile Web Application

[Source: National Institute for Occupational Safety and Health, July 7, 2016](#)

The NIOSH Pocket Guide to Chemical Hazards Mobile Web App (mNPG) works on any mobile device with an HTML5-compliant web browser. The app can be used offline when no internet or cell phone connection is available.

[Read more...](#)

Dry adhesive technology mimics gecko's feet

[Source: Chemical Engineering, January 1, 2016](#)

A dry adhesive technology inspired by the microscopic hairs on gecko's feet is said to be the first of its kind to be commercialized. Known as Setex, the technology was developed by nanoGriptech Inc. (Pittsburgh, Pa.; www.nanogriptech.com), a company spun out of Carnegie Mellon University, and uses no chemicals and leaves no residue.

[Read more...](#)

*Greenlist Bulletin is compiled by:
Mary Butow
Research and Reference Specialist
Toxics Use Reduction Institute
University of Massachusetts Lowell
600 Suffolk Street, Wannalancit Mills Suite 501
Lowell, MA 01854-2866
978-934-4365
978-934-3050 (fax)
mary@turi.org*