

This is the 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.

Chemical sleuthing leads to detection of little-known flame retardant in the environment

[Source: Indiana University, April 16, 2018](#)

BLOOMINGTON, Ind. -- Chemists at Indiana University have published research findings on their discovery of a new and relatively unknown flame retardant in the environment. Their study is the first to detect the potentially toxic chemical in North America.

The chemical, called TTBP-TAX, is part of a new class of triazine-based "alternative" compounds that have been introduced as substitutes for earlier generations of flame retardants that were banned or removed from the market because of health and environmental concerns.

The researchers found the chemical not only in an electronic waste facility, where it would be expected, but in the bedrooms and living rooms of homes in Bloomington, Indiana.

[Read more...](#)

See original study in *Environmental Science & Technology*, "[Alternative Flame Retardant, 2,4,6-Tris\(2,4,6-tribromophenoxy\)-1,3,5-triazine, in an E-waste Recycling Facility and House Dust in North America](#)".

Also see from *ES&T*, "[A Novel Brominated Triazine-based Flame Retardant \(TTBP-TAZ\) in Plastic Consumer Products and Indoor Dust](#)".

In This Issue

[Chemical sleuthing leads to detection of little-known flame retardant in the environment](#)

[Hasbro Partners with TerraCycle to Launch Toy and Game Recycling Pilot Program](#)

[Wrap-Up of Federal and State Chemical Regulatory Developments, April 2018](#)

[Cooking with Fracked Gas Poses Potential Problem](#)

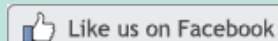
[Evaluation of Organic and Inorganic Compounds Extractable by Multiple Methods from Commercially Available Crumb Rubber Mulch](#)

[Join Our Mailing List](#)

Quick Links

[Greenlist Bulletin Archives](#)

[TURI Website](#)



TURI Spring 2018 Continuing Education Conference

**Wednesday, April 25, 2018
Marlborough, MA**

Keynote Speaker: Laura Vandenberg

Assistant Professor at UMass Amherst, Dr. Vandenberg is an expert in health effects and mechanisms of action for specific chemicals of concern.

Check out our [website for more information about the conference](#), including a session on **'3D Printing: The Opportunities and the Implications for MA Companies'**.

Hasbro Partners with TerraCycle to Launch Toy and Game Recycling Pilot Program

[Source: Waste 360, April 17, 2018](#)

Hasbro is launching a new toy and game recycling pilot program with TerraCycle, a global leader in product recycling, in the contiguous U.S. During the pilot program, consumers can collect and send their Hasbro toys and games to TerraCycle, which will recycle them into materials that can be used in the construction of play spaces, flower pots, park benches and other innovative uses.

"We're excited to launch the Hasbro Toy Recycling pilot program because it aligns so well with our purpose to make the world a better place for children and their families," said John Frascotti, president of Hasbro, Inc., in a statement. "As a company, we know consumers share our commitment to taking care of our planet for future generations, and we see this as an exciting step in our sustainability journey."

In honor of Earth Day, consumers in the contiguous U.S. can visit Hasbro's website to sign up for the free recycling pilot program starting on April 16. Once participants sign up, they can collect and box up their toys and games, print out a free shipping label and send their box to TerraCycle, which will sort and recycle the products. The pilot program will accept all Hasbro toys and games, including face-to-face games, plastic and electronic toys, action figures, dolls, plush and more.

[Read more...](#)

Wrap-Up of Federal and State Chemical Regulatory Developments, April 2018

[Source: JD Supra, April 18, 2018](#)

[Authors: Bergeson & Campbell, P.C.](#)

EPA Issues Draft Guidance On Expanded Access To Confidential Business Information: On March 16, 2018, the U.S. Environmental Protection Agency (EPA) released three draft guidance documents for public comment clarifying the circumstances under which EPA may disclose Toxic Substances Control Act (TSCA) confidential business information (CBI) with an expanded set of people. 83 Fed. Reg. 17748. Amended TSCA Section 14(d) expanded the categories of people to whom EPA may disclose TSCA CBI by specifically authorizing EPA to disclose TSCA CBI to state, tribal, and local governments; environmental, health, and medical professionals; and emergency responders, under certain conditions, including consistency with guidance that EPA is required to develop. ...

NIOSH Draft NORA For Respiratory Health Recommends Preventing Dust-Induced Lung Diseases, Including Those Associated With Nanomaterials: On March 15, 2018, the National Institute for Occupational Safety and Health (NIOSH) announced the availability of the draft *National Occupational Research Agenda for Respiratory Health* [for] comment. 83 Fed. Reg. 11537. The draft National Occupational Research Agenda (NORA) for Respiratory Health is the first NORA to address respiratory health, and it is intended to identify the research, information, and actions most needed to prevent occupational injuries. The objectives include preventing and reducing work-related

interstitial/dust-induced lung diseases. This will be achieved in part by preventing and reducing coal workers' pneumoconiosis "and other dust-induced lung diseases, including those associated with nanomaterials." According to the draft NORA, since there is no known effective treatment for any of the pneumoconioses, "primary prevention to control workplace fibrogenic dust exposures, medical surveillance for early disease detection, and other interventions from across the hierarchy of controls are essential." Comments on the draft NORA for Respiratory Health are due May 14, 2018.

[Read more...](#)

View the [draft *National Occupational Research Agenda for Respiratory Health*](#).

Cooking with Fracked Gas Poses Potential Problem

[Source: Boston University, March 21, 2018](#)

[Author: Megan Woolhouse](#)

Natural gas that has been derived from hydraulic fracking is now the most commonly used fuel in gas fireplaces and kitchen ranges. It rose to that level over the past 15 years, with little examination of the health risks of the chemicals that are used in fracking and released when the gas is burned.

"Few if any people have actually tested for what else is in this gas," says Nathan Phillips, a Boston University College of Arts & Sciences earth and environment professor, one of the country's foremost experts on natural gas leaks and explosions in the United States. "It's 90 to 95 percent methane, but what else?"

Phillips and a team of researchers from several universities and nonprofits are finding out, and they are concerned. Of the 108 volatile organic compounds, or substances that easily become vapors or gases, found in gas from four Massachusetts municipalities tested, 27 are chemicals that are considered hazardous by federal Clean Air Act standards, and 12 are suspected carcinogens.

[Read more...](#)

Evaluation of Organic and Inorganic Compounds Extractable by Multiple Methods from Commercially Available Crumb Rubber Mulch

[Source: *Water, Air, & Soil Pollution*, March 2018](#)

[Author: Gaboury Benoit and Sara Demars](#)

Recycled tires are often shredded for use in a variety of consumer-related products. The rubber so used may contain a number of compounds known to be deleterious to human and environmental health. We obtained nine samples of shredded tire material sold over the counter to the general public for home use, as well as six samples used for infill in synthetic turf athletic fields. After thorough cleaning and grinding, samples were extracted with either organic solvent (dichloromethane), strong acid, or simulated acid rain, or allowed to degas passively. Compounds released by these multiple methods were then identified, and in some cases quantified. Solvent extraction yielded 92 separate compounds, of which only about half have been tested for human health effects. Of these, nine are known carcinogens and another 20 are recognized irritants, including respiratory irritants that may complicate asthma. Strong acid extraction released measurable amounts of Pb and Cd and relatively large amounts of Zn. These three metals were specifically targeted for analysis, and others may be present as well, but were unmeasured. Simulated acid rain extracted only Zn in significant quantities. Passive volatilization yielded detectable amounts of 11 compounds. Results demonstrate that recycled tire materials contain and can release a wide variety of substances known

to be toxic, and caution would argue against their use where human exposure is likely.

[Read more...](#)

TURI's Note: See our Subject Guide on [Artificial Turf](#) for more information.

*Greenlist Bulletin is compiled by:
Mary Butow
Research and Reference Specialist
Toxics Use Reduction Institute
University of Massachusetts Lowell
126 John Street, Suite 14, Second Floor
Lowell, MA 01852
978-934-4365
978-934-3050 (fax)
mary@turi.org*