Greenlist BULLETIN

TURI TOXICS USE REDUCTION INSTITUTE UMASS LOWELL

Toxics Use Reduction Institute March 30, 2018

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.

3-D printer emissions raise concerns and prompt controls: Scientists want to set a voluntary standard that manufacturers compete to meet

Source: *Chemical & Engineering News*, March 26, 2018

Author: Janet Pelley

By depositing molten plastic layer upon layer, three-dimensional printers can crank out almost anything, including toys, guns, and artificial limbs. The surging 3-D printer market has made desktop versions affordable for schools and libraries. But the printers' growing prevalence has raised concerns about potential negative health effects from inhaling toxic volatile organic compounds (VOCs) and particles given off by the devices.

Although the government has set workplace standards for a few of the VOCs released by 3-D printers, these are for healthy working-age adults in industrial settings such as tire or plastic manufacturing plants: None of the compounds is regulated in homes or libraries where 3-D printers might be used by sensitive populations such as children. Furthermore, researchers don't know the identity of most of the compounds emitted by printers. "Scientists know that particles and VOCs are bad for health, but they don't have enough information to create a regulatory standard for 3-D printers," says Marina E. Vance, an environmental engineer at the University of Colorado, Boulder.

Read more...

In This Issue

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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'.**

MassDEP Issues Air Rule Amendments

Source: *JD Supra*, March 30, 2018
Author: Steven Richmond

Culminating a two-year rule promulgation process, MassDEP has issued a final rule amendment package that makes adjustments to numerous provisions of the Massachusetts air regulations. The announced purpose of this package was to streamline the rules and reduce unnecessary regulatory burdens pursuant to Governor Baker's Executive Order 562 and to adopt changes to various provisions to make them more consistent with the federal rules.

Read more...

See from MassDEP, "Final Amendments to 310 CMR 7.00 Air Pollution Control".

Dining Out Associated with Increased Exposure to Harmful Chemicals Called Phthalates

Source: George Washington University, March 28, 2018

WASHINGTON, DC (March 28, 2018) -- Dining out more at restaurants, cafeterias and fast-food outlets may boost total levels of potentially health-harming chemicals called phthalates in the body, according to a study out today. Phthalates, a group of chemicals used in food packaging and processing materials, are known to disrupt hormones in humans and are linked to a long list of health problems.

The study is the first to compare phthalate exposures in people who reported dining out to those more likely to enjoy home-cooked meals. People who reported consuming more restaurant, fast food and cafeteria meals had phthalate levels that were nearly 35 percent higher than people who reported eating food mostly purchased at the grocery store, according to the study.

"This study suggests food prepared at home is less likely to contain high levels of phthalates, chemicals linked to fertility problems, pregnancy complications and other health issues," says senior author Ami Zota, ScD, MS, an assistant professor of environmental and occupational health at Milken Institute School of Public Health (Milken Institute SPH) at the George Washington University. "Our findings suggest that dining out may be an important, and previously under-recognized, source of exposure to phthalates for the U.S. population."

Read more...

See study in *Environment International*, "Dietary sources of cumulative phthalates exposure among the U.S. general population in NHANES 2005-2014."

US food safety body issues 'best practice' on chemicals in packaging

Source: *Chemical Watch*, March 22, 2018
Author: Clelia Oziel

A US-based food safety alliance has published a list of chemicals of concern it says packaging suppliers should either eliminate from materials or minimize the use of.

The Food Safety Alliance for Packaging (FSAP) says its proposal goes beyond regulatory requirements and suppliers could use it as a best practice to formulate food packaging products for consumers.

The document lists 15 different packaging parts and components, with the names of chemicals or groups of chemicals contained in them. For each one, there is a description, details of existing international controls and a recommendation to either replace with an alternative or minimize use.

Read more...

See information from FSAP and the Institute of Packaging Professionals (IoPP), "Food Packaging Product Stewardship Considerations".

The Financial Benefits of Water Treatment: Due to the rising costs of water use and disposal, improved treatment technologies make economic sense

Source: *Chemical Engineering*, May 1, 2017
Author: Joy LePree

While chemical processors think of themselves as just that -- makers of chemicals -- they don't often consider themselves players in the water industry. However, due to a combination of drivers, such as water scarcity and pressure to clean up discharge water coupled with improved water treatment technologies and tools, it may be time to consider water treatment as more than a necessary method to improve water quality for process or discharge. In fact, experts agree that water treatment can also be an integral part of the chemical processing business and a way to boost the bottom line.

Read more...

TURI's Note: See a 2015 case study from a TURA 25th anniversary leader, Analog Devices, "Innovative Solutions to Conservation: New Approach to High Purity Water Treatment".

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