Greenlist BULLETIN

TURI
TOXICS USE REDUCTION INSTITUTE
UMASS LOWELL

Toxics Use Reduction Institute January 5, 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.

Happy New Year!

Dear Greenlist Subscribers,

TURI is moving to a new location as of January 18, 2017 -- The Offices at Boott Mills West, 126 John Street, Suite 14, Lowell, MA, 01852. We hope you will come by to visit the library and the laboratory some time in the Spring. Due to the move, we will be resuming publication of Greenlist at the end of January.

All the best,
Mary

FDA Stops Medical Uses of Triclosan in Hospitals, Other Disinfectants to Stay Despite No Safety and Efficacy Data on Controlling Bacteria

Source: Beyond Pesticides, January 2, 2018

The Food and Drug Administration (FDA) on December 19, 2017 announced it was removing from the market 24 over-the-counter (OTC) disinfectants or antimicrobial ingredients, including triclosan, used by health care providers primarily in medical settings like hospitals, health care clinics, and doctors' offices. The agency took this action because the chemical industry did not respond to a 2015 request for data to support a finding of "generally recognized as safe and effective (GRASE)." The decision, which follows a 2016 FDA decision to remove OTC consumer soap products with triclosan for the same reason, leaves numerous consumer products (fabrics and textiles,

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WEBINAR: Relaunching the P2OASys Tool for TUR Planners

TURI developed the Pollution Prevention Options Assessment System (P2OASys) tool to help companies determine whether the toxics use reduction (TUR) options they are considering improve upon their existing process when looking at environmental, health and safety topics. By using P2OASys, unforeseen negative environmental,

sponges, undergarments, cutting boards, hair brushes, toys, prophylactics, other plastics, etc.) on the market with triclosan (often labeled as microban) under the jurisdiction of the U.S. Environmental Protection Agency (EPA). The December decision leaves in commerce six antiseptic compounds widely used in the hospital and medical setting, in response to industry requests for more time to develop safety and efficacy data.

Read more...

worker or public health impacts may be identified prior to adopting the proposed changes.
Find more information about the webinar and registration here.

Echa committees approve diisocyanates restriction with workplace training

Source: *Chemical Watch*, December 14, 2017
Author: Dr. Emma Davies

Echa's Committees for Risk Assessment (Rac) and Socio-Economic Analysis (Seac) have agreed with Germany's proposal to restrict the use of diisocyanates in the workplace.

The restriction covers mandatory workplace training, to prevent new cases of occupational asthma occurring from exposure to the chemicals.

Together with polyols, diisocyanates form the building blocks of polyurethane. They are used to make both flexible and rigid polyurethane foams, as well as elastomers, binders and coating materials. The chemicals are not found in finished consumer products.

Methylene diphenyl diisocyanate (MDI), toluene diisocyanate (TDI), and hexamethylene diisocyanate are more likely to cause respiratory sensitization, but the restriction covers other diisocyanates as well.

Read more...

TURI's Note: Toluene diisocyanates were designated as Higher Hazard Substances effective January 2017. See our Toluene Diisocyanates Fact Sheet.

Toxic Effects of Bisphenol S Showing Immunomodulation in Fish Macrophages

Source: *Environmental Science & Technology*, December 20, 2017
Authors: Wenhui Qiu, Ming Yang, Shuai Liu, Penghui Lei, Lei Hu, Bei Chen, Minghong Wu, and Ke-Jian Wang

Bisphenol S (BPS), a structural analogue of bisphenol A (BPA), has been increasingly used as a common replacement of BPA due to health concerns regarding the former. However, mounting evidence suggests that BPS has similar endocrine-disrupting effects as BPA, and likewise, its presence in the environment may pose considerable risks to ecosystems and human health. Using fish primary macrophages (fpMQs), we here evaluated the immunomodulatory effects of BPS and its mechanisms of action associated with estrogen receptors (ERs). Following BPS exposure at environmentally relevant concentrations from 0.1 to 1,000 μg/L, we observed approximate concentration-dependent increases in nitric oxide and reactive oxygen species generation and total antioxidant capacity as well as the gene expression of inflammatory cytokines in fpMQs. BPS impaired phagocytic capability but enhanced fpMQ activation levels in response to lipopolysaccharide stimulation and promoted apoptosis, indicating

an impact on cell functions. At a concentration of 100 µg/L, BPS and BPA showed comparable pro-inflammatory potential with both up-regulating the production of free radicals and cytokine expression; however, BPS had no significant potency with regards to inducing lipid peroxidation and apoptosis, different from BPA's effects. Moreover, BPS induced both erα and erβ2 expression in fpMQs, whereas BPA induced only erα expression. This study demonstrates that, similarly to BPA, exposure to low doses of BPS significantly disturbs the immune response of fpMQs in vitro and first reveals overlapping but different roles of ERs in response to BPS and BPA.

Read more...

Papermaking Best Practices With Vacuum-Dewatering Systems: Part 2

Source: *Paper 360°*, November/December 2017
Author: Doug Sweet

When creating a long list of best practices relative to paper machine vacuum systems, they seem to fall into two classifications: Process and Management. We presented process best practices in the Sep/Oct issue of *Paper 360°*. Here we will look at management best practices.

Considering the essential requirement for reliable and controllable vacuum for all paper machine applications (flatboxes, couch, pressing, sheet transfer, and felt dewatering and conditioning) there are many items impacting the system that are not process-related. Management best practices are related to personnel, mill procedures and culture, and employee expectations. The best processes may not be well-managed, while the best management may provide superior operation of older processes.

Read more...

Also see from *Paper 360°,* "Papermaking Best Practices With Vacuum-Dewatering Systems: Part 1".

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