

Greenlist Bulletin

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

March 29, 2013

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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.



2012 EPA research annual report is now available

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

In 2012, EPA's Chemical Safety for Sustainability research developed and used innovative approaches to better understand chemical hazards, consumers' exposures to chemicals and the associated risks. These approaches can be used to inform the design of safer chemicals. Read about all of EPA's 2012 research accomplishments including chemical safety research in the recently released annual report.

[Read more...](#)

Here is a link to their section on '[Increasing Transparency and Accessibility of Chemical Safety Information.](#)'



Predictors of tris(1,3-dichloro-2-propyl) phosphate metabolite in the urine of office workers

[Source: Environment International, February 16, 2013](#)

Authors: Courtney C. Carignan, Michael D. McClean, Ellen M. Cooper, Deborah J. Watkins, Alicia J. Fraser, Wendy Heiger-Bernays, Heather M. Stapleton, Thomas F. Webster

Tris(1,3-dichloro-2-propyl) phosphate (TDCPP) is a flame retardant widely used in furniture containing polyurethane foam. It is a carcinogen, endocrine disruptor, and potentially neurotoxic. Our objectives were to characterize exposure of adult office workers (n = 29) to TDCPP by measuring its primary metabolite, bis(1,3-dichloro-2-propyl) phosphate (BDCPP), in their urine; measuring TDCPP in dust from their homes; offices and vehicles; and assessing possible predictors of exposure. We identified TDCPP in 99% of dust (GM = 4.43 µg/g) and BDCPP in 100% of urine samples (GM = 408 pg/mL). Concentrations of TDCPP were significantly higher in dust from vehicles (GM = 12.5 µg/g) and offices (GM = 6.06 µg/g) than in dust from the main living area (GM = 4.21 µg/g) or bedrooms (GM = 1.40 µg/g) of worker homes. Urinary BDCPP concentrations among participants who worked in a new office building were 26% of those who worked in older buildings (p = 0.01). We found some evidence of a positive trend between urinary BDCPP and TDCPP in office dust that was not observed in the other microenvironments and may be related to the timing of urine sample collection during the afternoon of a workday. Overall our findings suggest that exposure to TDCPP in the work environment is one of the contributors to the personal exposure for office workers. Further research is needed to confirm specific exposure sources (e.g.,

polyurethane foam), determine the importance of exposure in other microenvironments such as homes and vehicles, and address the inhalation and dermal exposure pathways.

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Pushing the Edge of the Durable Color Envelope

[Source: *Paint & Coatings Industry*, January 4, 2013](#)

Author: Mark M. Ryan Jr.

The trade-off in the yellow and orange color space between the weatherability, heat stability and opacity of inorganic pigments versus the chromaticity, brightness and tint strength of organic colorants, in light of the decrease in use of pigments based on deprecated metals, has opened an opportunity for new colored pigment chemistries. Two pigment chemistries can be useful in bridging the gap between the two groups. One of the chemistries is the recent commercialization and improvement of CI Pigment Yellow 216 and Orange 82, more conversationally called rutile tin zinc (RTZ) pigments. The other is a new class of yellow pigments called niobium tin pyrochlore (NTP), assigned the designation CI Pigment Yellow 227. Together these pigments provide high chroma, opacity and durability in the yellow-orange color space. These highly engineered pigments are excellent colorants for demanding thin-film applications and are compatible with a wide range of resins.

[Read more...](#)

The best tools for using healthier materials in your products

[Source: *GreenBiz.com*, March 26, 2013](#)

Authors: Tish Tablan and Stacy Glass

According to the U.S. Environmental Protection Agency, everyone alive today carries a chemical body burden of at least 700 contaminants. Scientists are beginning to learn more about how low-level exposure to certain chemicals in the products we use every day can contribute to a higher risk of various health problems, including cancer, autism, infertility, obesity and more. McDonough Braungart Design Chemistry works with product manufacturers to help them identify potentially hazardous chemicals in their products and find healthier alternatives.

This article is the second in a three-part series exploring the challenges manufacturers face to design healthier products and the resources available to help them avoid chemicals of concern. Each post will focus one of the three phases in the Cradle to Cradle framework: inventory, assessment and optimization.

[Read more...](#)

EPA Announces Chemicals for Risk Assessment in 2013, Focus on Widely Used Flame Retardants

[Source: *U.S. Environmental Protection Agency*, March 27, 2013](#)

WASHINGTON -- Today, the U.S. Environmental Protection Agency (EPA) announced it will begin assessments on 23 commonly used chemicals, with a specific focus on flame retardant chemicals, in order to more fully understand any potential risks to people's health and the environment. This effort is part of the Toxic Substances Control Act (TSCA) Work Plan which identifies commonly used chemicals for risk assessment.

Americans are often exposed to flame retardant chemicals in their daily lives; flame retardants are widely used in products such as household furniture, textiles, and electronic equipment. Some flame retardant chemicals can persist in the environment, bioaccumulate in people and animals, and have been shown to cause neurological developmental effects in animals.

[Read more...](#)

Please send a message to mary@turi.org if you would like more information on any of these resources. Also, please tell us what topics you are particularly interested in monitoring, and who

else should see Greenlist. An online search of the TURI Library catalog can be done at <http://library.turi.org> for greater topic coverage.

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