

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.

Program identifies safer chemicals for use as plasticizers

[Source: Wire Journal International, November 2015](#)

[Authors: Monica Becker and Gregory Morose](#)

It took years of work, but an independent body formed by a cross section of business, industry, academics and public institutions started out with approximately a hundred plasticizers for wire and cable, specifically for the electronics sector, and a goal: to identify safer chemicals. The list was pared down to nine by methods that included a screening process, then assessed, with the result shown [in the tables on the opposite page].

The project, which came about through a pilot program of the Green Chemistry & Commerce Council (GC3), is not meant to be an endorsement. Instead, it provides an assessment of the products, and not all of them are complete.

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EPA Awards Environmental Education Grants to Four Massachusetts Organizations

[Source: U.S. Environmental Protection Agency, November 18, 2015](#)

BOSTON -- Four Massachusetts organizations were awarded a total of \$275,332 by the US

In This Issue

[Program identifies safer chemicals for use as plasticizers](#)

[EPA Awards Environmental Education Grants to Four Massachusetts Organizations](#)

[ICIS Shortlists Archroma Earthcolors for its 2015 Innovation Awards](#)

[Addition of 1-Bromopropane](#)

[Environmental Working Group Launches Cosmetics Verification Program](#)

[Trouble in Toyland: The 30th Annual Survey of Toy Safety](#)

[France proposes carcinogen 1B classification for titanium dioxide](#)

[Tapping into Nature: Materials that matter](#)

[Detection of Carbon Nanotubes in Indoor Workplaces Using Elemental Impurities](#)

[Vermont approves product-specific chemical reporting rule](#)

[Perkins + Will, HBN, Unravel the Myth of "Clean Vinyl"](#)

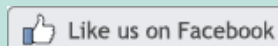
[Review of Environmental Assessment Case Studies Blending Elements of Risk Assessment and Life Cycle](#)

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Quick Links

[Greenlist Bulletin Archives](#)

[TURI Website](#)



Environmental Protection Agency for programs that will educate the community about climate change and other environmental issues. The programs selected were among seven New England groups awarded a total of \$533,000 by EPA for programs that educate the community about climate change and other environmental issues.

Greenagers, Inc. in Great Barrington, Mass., "e" inc. of Boston, New England Environmental Alliance of Devens and the Massachusetts Audubon Society in Lincoln were among nearly four dozen organizations in New England to apply for funding. Other winning programs came from Vermont, Maine and Connecticut.

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ICIS Shortlists Archroma Earthcolors for its 2015 Innovation Awards

[Source: Archroma, September 3, 2015](#)

Archroma, a global leader in color and specialty chemicals, is pleased to announce that its new EarthColors* range of nature-inspired dyes has been named to the shortlist of entries being considered for a 2015 Innovation Award by *ICIS Chemical Business* magazine. ...

EarthColors*, available exclusively to eco-conscious fashion brand owners, is Archroma's patented new method of creating warm ternary shades from nature. These high-performance dyes are synthesized from non-edible natural products such as almond shells, saw palmetto or rosemary leaves that otherwise would be sent to landfill. They can be used to provide rich red, brown and green colors to cotton and cellulose-based fabrics denim and casualwear.

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[Also see another shortlist finalist, Dow Chemical, for their Purinze ultrafiltration technology for washing machines.](#)

Addition of 1-Bromopropane

[Source: U.S. Environmental Protection Agency, November 23, 2015](#)

On November 23, 2015, EPA published a final rule that added 1-bromopropane to the TRI list of reportable chemicals. 1-Bromopropane has been classified as "reasonably anticipated to be a human carcinogen" by the National Toxicology Program in its 13th Report on Carcinogens document. Based on a review of the data in the Report on Carcinogens, EPA determined that 1-bromopropane meets the Emergency Planning and Community Right-to-Know Act (EPCRA) Section 313(d)(2)(B) statutory listing criteria because it can reasonably be anticipated to cause cancer in humans.

[Read more...](#)

See final rule [here](#).

TURI's Note: nPB is designated as a [Higher Hazard Substance](#) under TURA, effective for reporting in calendar year 2016. See our fact sheet on [n-Propyl bromide](#).

Environmental Working Group Launches Cosmetics Verification Program

Source: [Chemical & Engineering News, November 9, 2015](#)

Author: Marc S. Reisch

The Environmental Working Group, an activist organization, has launched a verification seal for personal care products intended to help consumers avoid toxic chemicals and contaminants that it says are commonly found in cosmetics.

The seal, known as EWG Verified, will make shopping "easier for overwhelmed consumers who want to quickly find a bottle of shampoo or a tube of toothpaste that is better for their health," says Ken Cook, the group's president. Two small cosmetic makers, Beautycounter and MyChelle Dermaceuticals, will be the first program participants.

Products eligible for the mark cannot contain probable reproductive, carcinogenic, or environment-damaging toxins, EWG says. Among the ingredients the group proscribes are paraben preservatives and nitro- and polycyclic musk fragrance ingredients, all of which it considers suspected endocrine disruptors.

However, personal care products that include synthetic chemicals aren't automatically barred from receiving the EWG seal. Although sunscreen formulas aren't covered in the new verification program, the group has argued in favor of certain synthetic sunscreen ingredients permitted in Europe but not allowed in the U.S.

[Read more...](#)

Also see from Environmental Working Group, "[Common Preservative in Personal Care Products Linked To Breast Cancer](#)".

Trouble in Toyland: The 30th Annual Survey of Toy Safety

Source: [U.S. PIRG Education Fund, November 2015](#)

For 30 years, U.S. PIRG Education Fund has conducted an annual survey of toy safety, which has led to over 150 recalls and other regulatory actions over the years, and has helped educate the public and policymakers on the need for continued action to protect the health and wellbeing of children.

Among the toys surveyed this year, we found potential choking and noise hazards, one toy that exceeded federal toxic standards, and three toys that preliminary testing showed may exceed federal standards. This report not only lists the potentially dangerous toys that we found this year, but also describes why and how the toys could harm children.

[Read more...](#)

France proposes carcinogen 1B classification for titanium dioxide

Source: [Chemical Watch, November 26, 2015](#)

The French authorities have submitted an intention to propose a harmonised classification for titanium dioxide as a category 1B carcinogen. The intention says the

proposal was submitted recently, but details have yet to be published.

Classification as a category 1A or B carcinogen has significant implications under REACH as:

- it is a criterion for nominating substances of very high concern (SVHC) under Article 57a; and
- substances with such a classification should be restricted in consumer applications - of which titanium dioxide has many, including some using the substance in its nanoform.

The dossier proposing the classification was sent to ECHA [European Chemicals Agency] by the French Agency for Food, Environmental and Occupational Health and Safety (Anses).

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Tapping into Nature: Materials that matter

[Source: GreenBiz.com, November 25, 2015](#)

[Authors: Chris Garvin, Cas Smith, Erika Hanson and Allison Bernett](#)

Materials -- with their various strengths, finishes and functions -- underpin all industries, even those that involve intangible goods and services. Therefore, creating materials that provide superior performance at minimal cost is important to every business. Organisms, which "manufacture" their tissues at ambient conditions using locally available materials and energy, offer myriad examples of resource-efficient material manufacturing.

Nature constructs these materials with a vast array of functions unsurpassed by many synthetic materials. It accomplishes this through nanoscale precision, using chemical elements in different proportions and atomic arrangements from synthetic materials.

[Read more...](#)

[See full report from Terrapin Bright Green, "Tapping into Nature".](#)

Detection of Carbon Nanotubes in Indoor Workplaces Using Elemental Impurities

[Source: Environmental Science and Technology, October 9, 2015](#)

This study investigated three area sampling approaches for using metal impurities in carbon nanotubes (CNTs) to identify CNT releases in workplace environments: air concentrations ($\mu\text{g}/\text{m}^3$), surface loadings ($\mu\text{g}/\text{cm}^2$), and passive deposition rates ($\mu\text{g}/\text{m}^2/\text{h}$). Correlations between metal impurities and CNTs were evaluated by collecting simultaneous colocated area samples for thermal-optical analysis (for CNTs) and ICP-MS analysis (for metals) in a CNT manufacturing facility. CNTs correlated strongly with Co (residual catalyst) and Ni (impurity) in floor surface loadings, and with Co in passive deposition samples. Interpretation of elemental ratios (Co/Fe) assisted in distinguishing among CNT and non-CNT sources of contamination. Stable isotopes of Pb impurities were useful for identifying aerosolized CNTs in the workplace environment of a downstream user, as CNTs from different manufacturers each had distinctive Pb isotope signatures. Pb isotopes were not useful for identifying CNT releases within a CNT manufacturing environment, however, because the CNT signature reflected the indoor background signature. CNT manufacturing companies and downstream users of CNTs will benefit from the availability of alternative and complementary strategies for identifying the presence/absence of CNTs in the workplace and for monitoring the

effectiveness of control measures.

[Read more...](#)

See fact sheet from AIHA Nanotechnology Working Group, "[Personal Protective Equipment for Engineered Nanoparticles](#)".

Vermont approves product-specific chemical reporting rule

[Source: Chemical Watch, November 24, 2015](#)

A Vermont legislative council has approved a rule that will require product-specific reporting, under the state's chemical disclosure programme for children's products, despite objection from industry groups (CW 22 September 2015).

The rule, developed by the Vermont Department of Health (DoH) and approved by the Legislative Committee on Administrative Rules (LCAR), is expected to take effect in early December.

It stipulates that manufacturers of children's products, containing any of 66 chemicals of high concern to children, report by 1 July 2016 their presence in products, identified by brand name and product model.

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Perkins + Will, HBN, Unravel the Myth of "Clean Vinyl"

[Source: Healthy Building Network, November 18, 2015](#)

[Author: Melissa Coffin](#)

[Today], the global architecture firm Perkins+Will released a white paper, What's New (and What's Not) With PVC, which explores the current state of polyvinyl chloride (PVC), written in partnership with the Healthy Building Network.

The vinyl industry has been on a new rebranding campaign: "clean-vinyl" and "bio-vinyl" are two examples of the trade names at the forefront of this campaign to position vinyl as a breakthrough and advanced green product. While some vinyl products have excluded problematic additives, these reformulations have not -- and cannot -- address the lifecycle hazards tied to PVC's intrinsic chlorinated chemistry.

The white paper concludes that the fundamental hazards inherent in the chemistry of the material cannot be resolved: PVC remains a plastic based on chlorine chemistry. It will always require vinyl chloride monomer; produce dioxins during synthesis, accidental fires during use and in landfill disposal; and, it will continue to present a hazard to building occupants, firefighters, other first responders, and the local community during fires.

[Read more...](#)

[Access paper here, "Healthy Environments: What's New \(and What's Not\) With PVC".](#)

Review of Environmental Assessment Case Studies Blending Elements of Risk Assessment and Life Cycle Assessment

[Source: Environmental Science and Technology, November 6, 2015](#)

[Authors: Robin Harder, Hanna Holmquist, Sverker Molander, Magdalena Svanstrom, and Gregory M. Peters](#)

Risk assessment (RA) and life cycle assessment (LCA) are two analytical tools used to support decision making in environmental management. This study reviewed 30 environmental assessment case studies that claimed an integration, combination, hybridization, or complementary use of RA and LCA. The focus of the analysis was on how the respective case studies evaluated emissions of chemical pollutants and pathogens. The analysis revealed three clusters of similar case studies. Yet, there seemed to be little consensus as to what should be referred to as RA and LCA, and when to speak of combination, integration, hybridization, or complementary use of RA and LCA. This paper provides clear recommendations toward a more stringent and consistent use of terminology. Blending elements of RA and LCA offers multifaceted opportunities to adapt a given environmental assessment case study to a specific decision making context, but also requires awareness of several implications and potential pitfalls, of which six are discussed in this paper. To facilitate a better understanding and more transparent communication of the nature of a given case study, this paper proposes a "design space" (i.e., identification framework) for environmental assessment case studies blending elements of RA and LCA. Thinking in terms of a common design space, we postulate, can increase clarity and transparency when communicating the design and results of a given assessment together with its potential strengths and weaknesses.

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