

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 info@turi.org if you would like more information on any of the articles listed here, or if this email is not displaying properly.

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Tainted water: the scientists tracing thousands of fluorinated chemicals in our environment

Source: [Nature](#)

Author: [XiaoZhi Lim](#)

... The fluorochemicals story used to be simple. In the 1930s, the chemical industry created surfactant compounds with a unique ability to repel both grease and water, because their carbon chains were swaddled in fluorine atoms. Within 30 years, they were everywhere: in non-stick pans, raincoats, food wrappings, fire-fighting foams and all kinds of stain-proof coatings. Chemists would later call this fluorinated family 'per- and poly-fluoroalkyl substances', or PFASs. Their carbon-fluorine bonds are among the strongest known in nature — so the molecules don't degrade.

[Read more...](#)

See from [The Intercept](#), "[The U.S. Military Plans to Keep Incinerating Toxic Firefighting Foam, Despite Health Risks](#)"

Also see from [EcoWatch](#), "[EPA Decision on PFAS Coming Soon as Pressure Mounts](#)"

California's Technical Bulletin 133 – Flammability Test for Seating Furniture Used in Public Occupancies Repealed

Source: [SGS](#)

The California Bureau of Electronic and Appliance Repair, Home Furnishings and Thermal Insulation (BEARHFTI) amended California's furniture flammability regulations with the repeal of Technical Bulletin 133 (TB 133), effective January 22, 2019.

Enacted in 1991, TB 133 established flammability requirements for upholstered seating used in public occupancies including hospitals, nursing homes, jails, children's day care centers, public auditoriums and stadiums, and assembly areas.

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Also see [Massachusetts Environmentally Preferable Purchasing Guidance on Furniture](#)

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Cooking chemistry minus heat equals new non-toxic adhesive

Source: [Science Daily](#)

... Wilker studies how marine animals, such as oysters and mussels, create natural adhesives. Unlike most glues you'd find in a hardware store, these adhesives are non-toxic, and many hold up underwater. While trying to re-create a new glue in his lab one day, Wilker noticed something strange.

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See the *Journal of the American Chemical Society*, "[Cooking Chemistry Transforms Proteins into High-Strength Adhesives](#)"

Ex-Eastman employee charged with trade-secret theft

Source: [Chemical & Engineering News](#)

Author: Melody M. Bomgardner

A federal grand jury [has indicted](#) an American materials scientist and a Chinese national for stealing trade secrets related to formulas for bisphenol A-free coatings. The technology was developed by several companies and a major customer as part of an effort to replace food and beverage can linings made with BPA-containing epoxies because of concerns about human health effects of BPA.

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TURI's note: See TURI Technical Report, "[High Performance Bisphenol A \(BPA\)-Free Epoxy Resins](#)"

The world is having to confront the toxic results of our love affair with plastic. Could nature offer some alternatives?

Source: [BBC](#)

Author: Adrienne Bernhard

Drinking straws and polythene bags may be bearing the brunt of the backlash, but the true scourge of single-use plastics is our sheer overreliance on them. From transport to manufacturing to food services, plastic is everywhere, and combatting this "white pollution" will require a sea change in the material itself.

Fortunately, scientists, engineers and designers are shifting their focus to ecologically friendly alternatives that create circular, low-waste ecosystems – liquid wood, algae insulation, and polymer substitutes made from fermented plant starch such as corn or potatoes, for example.

These alternatives do more than stem the growing tide of plastics: they also address issues such as safely housing a growing population, offsetting carbon emissions, and returning nutrients to the earth.

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Greenlist Bulletin is compiled by:
Toxics Use Reduction Institute
University of Massachusetts Lowell
126 John Street, Suite 14, Second Floor
Lowell, MA 01852
978-934-3275
info@turi.org