

# Greenlist Bulletin

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

September 20, 2013

## In This Issue

EPA Marks Pollution Prevention (P2) Week with Renewed Emphasis on Reducing Carbon Pollution

National Report on Human Exposure to Environmental Chemicals

The State of US Health, 1990-2010: Burden of Diseases, Injuries, and Risk Factors

Cross-Linked Waxy Maize Starch-Based "Green" Composites

Colorants & Compounds: Focus on Directives

Substances Nominated to the Report on Carcinogens


Registration numbers granted to 9,030 REACH 2013 registrations

[Join Our Mailing List!](#)

## Quick Links

[Greenlist Bulletin Archives](#)

[TURI Website](#)

 [Like us on Facebook](#)

## Highlighted Resource

[2013 Additives Reference Guide](#)  
from *Paint & Coatings Industry*

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](mailto:mary@turi.org) if you would like more information on any of the articles listed here, or if this email is not displaying properly.



## EPA Marks Pollution Prevention (P2) Week with Renewed Emphasis on Reducing Carbon Pollution

[Source: U.S. Environmental Protection Agency, September 16, 2013](#)

WASHINGTON -- During Pollution Prevention (P2) Week, September 16-22, the U.S. Environmental Protection Agency (EPA) encourages Americans to prevent or reduce pollution at the source. This year's pollution prevention week comes just three months after President Obama's speech at Georgetown University where he outlined his Climate Action Plan to reduce carbon pollution that causes climate change. . . .

Pollution prevention week focuses on other ways to protect the environment. In addition to reducing carbon pollution, Americans can reduce pollution by:

**Saving water:** Look for the WaterSense label to find water efficient products, which can save over 5,000 gallons of water per year per household and keep water supplies at safe levels. Lower water levels can contribute to higher concentrations of natural and human pollutants.

**Picking safer products:** Look for EPA's Design for the Environment (DfE) Safer Product Label on more than 2,500 products for home and industrial use. Choosing DfE-labeled products can prevent 40 pounds of potentially harmful chemicals from being released into a home and the environment.

**Using pesticides properly:** If you need to manage pests in your home or garden, be PestWise -- you'll reduce risk to health and the environment from chemicals and save money with informed strategies.

[Read more...](#)

*TURI's Note:* Also see how to get involved for P2 Week 2013 by visiting the [National Pollution Prevention Roundtable page](#).

[Source: U.S. Centers for Disease Control and Prevention, September 18, 2013](#)

The *Fourth National Report on Human Exposure to Environmental Chemicals, Updated Tables, September 2013* provides new data since the release of the *Fourth Report, 2009*. Since the publication of the *Fourth Report*, 201 chemicals have been updated and data on 49 chemicals have been added. This update also includes new data for 91 chemicals measured in serum pooled samples. Review this publication for the most recent and complete biomonitoring data.

The *Updated Tables, September 2013*, present data from the 2005-2006, 2007-2008, and 2009-2010 survey periods. The *Updated Tables* are cumulative and include data reported in earlier updates.

[Read more...](#)

Access [Updated Tables, September 2013](#).

## The State of US Health, 1990-2010: Burden of Diseases, Injuries, and Risk Factors

[Source: The Journal of the American Medical Association, August 14, 2013](#)

Authors: Murray, CJL, et al. (US Burden of Disease Collaborators)

**Importance:** Understanding the major health problems in the United States and how they are changing over time is critical for informing national health policy.

**Objectives:** To measure the burden of diseases, injuries, and leading risk factors in the United States from 1990 to 2010 and to compare these measurements with those of the 34 countries in the Organisation for Economic Co-operation and Development (OECD) countries. . . .

**Conclusions and Relevance:** From 1990 to 2010, the United States made substantial progress in improving health. Life expectancy at birth and HALE increased, all-cause death rates at all ages decreased, and age-specific rates of years lived with disability remained stable. However, morbidity and chronic disability now account for nearly half of the US health burden, and improvements in population health in the United States have not kept pace with advances in population health in other wealthy nations.

[Read more...](#)

Read press release from Brigham Young University, [Breathing Better, Living Longer](#).

Also read these articles in *Environmental Health Perspectives*, [Particulate Matter and Cardiovascular Disease: Researchers Turn an Eye toward Microvascular Changes](#) and [Respiratory Disparity? Obese People May Not Benefit from Improved Air Quality](#).

## Cross-Linked Waxy Maize Starch-Based "Green" Composites

[Source: ACS Sustainable Chemistry and Engineering, September 4, 2013](#)

Authors: Trina Ghosh Dastidar and Anil Netravali

In this research, "green" composites were fabricated by blending waxy maize starch (WMS) with micro/nanofibrillated cellulose (MFC). Further, an environmentally friendly, sustainable, and water-soluble cross-linker, 1,2,3,4-butane tetracarboxylic acid (BTCA), was used to cross-link WMS to fabricate cross-linked starch-based composites. The method described here provides a benign and convenient way to produce cross-linked starch-based composite films ( $\approx 300 \mu\text{m}$  in thickness), comparable to commercially available plastic sheets. The process can be easily scaled up for commercial production. Industrially pregelatinized WMS was used to obtain smooth, transparent, and defect-free films. Cross-linking helped in reducing the moisture absorption as well as made the films and composites insoluble in water. MFC (15% MFC)-cross-linked WMS composite films exhibited excellent tensile properties with a Young's modulus of over 2.3 GPa, fracture strain of 3.1%, and fracture stress of 39 MPa, as a result of MFC incorporation. The toughness of these composites was also significantly higher, even without the use of plasticizers such as sorbitol. These materials can be good candidates for replacing petroleum-based resins such as epoxies and their composites.

[Read more...](#)

## Colorants & Compounds: Focus on Directives

This feature on compounds and colorants includes observations from one cable manufacturer's experience with complying with European directives such as RoHS, REACH, and WEEE; an upcoming TURI conference that will focus on the impact of RoHS/RoHS2; a skeptical view of LEED building credits; and how to factor cable life and Life Cycle Assessment (LCA) to determine value as well as a wide range of comments from suppliers of compounds and colorants.

Other items in this issue focused on compound and colorant products include:

- *Lubrizol TPU remains an industry staple, tough and easy to process*
- *Product from S&E excels for use in electric car charging stations*

*TURI's Note:* Contact the TURI Library to receive more information on these articles.

### Substances Nominated to the Report on Carcinogens

[Source: National Toxicology Program, September 20, 2013](#)

National Toxicology Program (NTP) Office of the Report on Carcinogens (ORoC) requests information on 20 substances, mixtures, and exposure circumstances (collectively referred to as "substances") nominated for possible review for future editions of the Report on Carcinogens (RoC).

The 20 "substances" are: *Aloe vera*, 2-Butoxyethanol, Chlorothalonil, Coconut diethanolamide, Cobalt (metal), Decalin, *Ginkgo biloba*, Goldenseal, Kava kava, 2-Methylimidazole, 4-Methylimidazole, Methyl isobutyl ketone, Nickel nanoparticles, Nitro PAHs, Perfluorooctanoic acids, Polyacrylates, Pulegone, Tetralin, Tris-(1,3-dichloro-2-propyl) phosphate, Wood smoke.

Note from the Federal Register Notice: "Nominations to the RoC may seek to list a new substance in the report, reclassify the listing status of a substance already listed, or remove a listed substance." See link to [Federal Register Notice](#).

[Read more...](#)

*TURI's Note:* See the [Master List of Carcinogens that are reportable under TURA in MA](#).

### Registration numbers granted to 9,030 REACH 2013 registrations

[Source: European Chemicals Agency, September 10, 2013](#)

According to the REACH Regulation, ECHA has three months to perform completeness checks on all registrations for phase-in substances submitted in the last two months before the registration deadline. The aim of the completeness check is to ensure that all required elements have been included in the registration dossier. The three-month period ended on 31 August and ECHA has managed to perform the completeness check for all dossiers submitted by the second REACH registration deadline.

The dossiers that have not received a registration number are cases where the registrant has to resubmit their dossier following a request for further information from ECHA and cases which will be rejected because of non-payment of the related fees.

[Read more...](#)

Please send a message to [mary@turi.org](mailto: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.

Greenlist Bulletin is compiled by:

Mary Butow  
Research and Reference Specialist  
Toxics Use Reduction Institute

University of Massachusetts Lowell  
600 Suffolk St., Wannalancit Mills  
Lowell MA 01854  
978-934-4365  
978-934-3050 (fax)  
[mary@turi.org](mailto:mary@turi.org)