# **Greenlist Bulletin**

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

# This Issue Features Articles on Bisphenol A (BPA)

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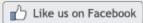
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information on any of the articles listed here, or if this email is not displaying properly.

# Questions and Answers about Bisphenol A

mary@turi.org if you would like more

Source: National Institute of Environmental Health Sciences, November 5, 2012

... One reason people may be concerned about BPA is because human exposure to BPA is widespread. The 2003-2004 National Health and Nutrition Examination Survey (NHANES III) conducted by the Centers for Disease Control and Prevention (CDC) found detectable levels of BPA in 93% of 2517 urine samples from people six years and older. The CDC NHANES data are considered representative of exposures in the United States. Another reason for concern, especially for parents, may be because some animal studies report effects in fetuses and newborns exposed to BPA. . . .

Read more...

# Scientists clash over BPA: Do low doses really harm people?

Source: Environmental Health News, February 16, 2013

Author: Elizabeth Grossman

BOSTON -- Are people exposed to doses of bisphenol A in their canned foods and other consumer products that can harm them? Or are the amounts too low to cause any harm?

This is the crux of a vehement debate that is being waged as federal officials are trying to decide whether the chemical, known as BPA, should be regulated.

A group of toxicologists, including some who work for federal agencies, is questioning the likelihood that BPA is harming human health. But biologists studying the chemical's health effects disagree, saying that what's been detected in people is comparable to amounts that have harmed lab animals.

BPA is arguably the most controversial chemical in consumer products. It is used to make polycarbonate plastic as well as food and beverage can liners and some paper receipts and dental sealants.

What is widely agreed upon is that exposure is ubiquitous. More than 90 percent of Americans tested have traces of BPA in their bodies.

#### Read more...

# Bisphenol A (BPA): Use in Food Contact Application

## Source: U.S. Food and Drug Administration, March 2013

Bisphenol A (BPA) is an industrial chemical that has been present in many hard plastic bottles and metal-based food and beverage cans since the 1960s.

Studies employing standardized toxicity tests have thus far supported the safety of current low levels of human exposure to BPA. However, on the basis of results from recent studies using novel approaches to test for subtle effects, both the National Toxicology Program at the National Institutes of Health and FDA have some concern about the potential effects of BPA on the brain, behavior, and prostate gland in fetuses, infants, and young children. In cooperation with the National Toxicology Program, FDA's National Center for Toxicological Research is carrying out in-depth studies to answer key questions and clarify uncertainties about the risks of BPA.

## Read more...

Also read the NTP-CERHR Monograph on The Potential Human Reproductive and Developmental Effects of Bisphenol A from the USDHHS National Toxicology Program, Center for the Evaluation of Risks to Human Reproduction.

# BPA Alternatives in Thermal Paper Partnership

# Source: U.S. Environmental Protection Agency, February 1, 2013

On July 31, 2012, through its Design for the Environment (DfE) program, EPA released a draft alternatives assessment report for bisphenol A (BPA) in thermal paper. This draft report is an assessment of 19 chemical alternatives that may substitute for BPA, which is used as a developer in thermal paper. In addition, this report provides background information about how thermal paper is made, and considerations for choosing an alternative. A chemical's inclusion in the report does not constitute EPA endorsement. This draft report does not identify functional chemicals with low concern for all human health and environmental hazard endpoints; all of the alternatives are associated with some trade-offs.

# Read more...

The draft alternatives assessment report for BPA can be accessed <u>here</u>. The alternatives selected for analysis in the hazard assessment can be found in Table 3-3, pages 3-8 to 3-10.

Also view the U.S. EPA chemical action plan for BPA here.

*TURI's Note:* Read about the Institute's sponsored academic research into alternatives to BPA in epoxy resins <u>here.</u>

#### Finding Information on BPA Using the US State-level Chemicals Policy Database

#### Source: Northeast Waste Management Officials' Association, April 6, 2011

The State Chemicals Policy Database is a searchable database of passed and pending state-level chemical policy legislation originally developed by the Lowell Center for Sustainable Production. Users can search the Database by state, region, status (i.e., enacted, proposed, or failed), policy category (e.g., pollution prevention, single chemical restriction, and others), chemical, and product type (e.g., children's products, cleaning products, and others).

To search the database, users can select from one or more of the categories in the pull-down menus below using various strategies. Users can search the database by selecting multiple pull-down

menus, which will generate results that contain all of the highlighted selections. Users can also search the database making multiple selections from a single pull-down menu, which will generate results that contain any of the highlighted selections.

#### Read more...

Additional information from "SAFER States" on Policy and Health topics pertaining to BPA can be found here.

Also read the National Conference of State Legislatures Policy Update re: <u>"State Restrictions on Bisphenol A (BPA) in Consumer Products."</u>

# Bisphenol A exposure, effects, and policy: A wildlife perspective

# Source: Journal of Environmental Management, March 2012

Thousands of anthropogenic chemicals are present in the environment, and mounting evidence indicates that some have endocrine-disrupting effects in a variety of organisms. Of particular concern are chemicals that act as agonists or antagonists on vertebrate estrogen or androgen receptors. One such compound is bisphenol A (BPA), which appears to be both an estrogen receptor agonist and an androgen receptor antagonist. Used in the manufacture of plastic resins, BPA is found at low levels in surface-water, sediments, soils, and biota. Although it degrades quickly, it is pseudo-persistent in the environment because of continual inputs. Due to its environmental ubiquity, organisms may be exposed to BPA chronically or during sensitive life stages. While the impacts of BPA-related endocrine disruption in humans have been extensively studied, the endocrinal and systemic effects in wildlife are less well known. This article reviews the current state of knowledge of BPA inputs to the environment, routes of exposure, and effects on wildlife. We then critically examine the regulatory structure governing the environmental endpoints of BPA in the United States, European Union, and Canada, and discuss major challenges to the effective regulation of BPA. We conclude with a survey of treatment and mitigation options.

#### Read more...

### Concerns grow about hormone disrupters in Wisconsin water

Source: Great Lakes Echo, April 29, 2013

Author: Kate Golden

In America's Dairyland, steroid hormones from livestock have been found in the snowmelt runoff from large cattle-feeding operations.

In the Shenandoah River, researchers investigating recurring fish kills found something in the polluted waters had feminized 80 to 100 percent of the male smallmouth bass, causing them to produce immature eggs in their testes.

And in Minnesota, three weeks after researchers put male minnows in lakes, they developed intersex characteristics.

All over the country, chemicals known to disrupt or act like hormones seem to have permeated the waters and may be harming wildlife -- or people.

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