IS BPA IN YOUR FOOD CANS? NEW REPORT SAYS YES!



Toxic BPA and regrettable substitutes found in the linings of canned food



A REPORT BY: Report Cancer Fund, Campaign for Healthier Solutions, Report Cancer Fund, Campaign

Buyers' Beware: Toxic BPA and Regrettable Substitutes Found in the Linings of Canned Food

Today's Presenters:

Janet Nudelman

Jeff Gearhart

BREAST CANCER FUND PREVENTION STARTS HERE.





Mike Schade



Beverley Thorpe



www.toxicfoodcans.org

Overview of today's webinar

- 1. The goals of the project
- 2. Our testing methodology and what we found
- What we learned from survey responses and reactions from retailers and brands
- 4. What we are asking to advance disclosure and informed substitution
- 5. Q&A

Questions?

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Any unanswered questions can be asked at <u>ops@cleanproduction.org</u>

Presentation and recording will be available at <u>www.cleanproduction.org</u>

Our Goals

- Determine to what extent BPA-based epoxy linings are still being used by major national brands and retailers in canned food linings, and whether these companies have policies in place to disclose and/or phase out its continued use;
- Determine the types of substitutes used in "BPA-free" can linings, and to what extent the safety of these substitutes has been studied;
- Identify company leaders and laggards in reducing the use of BPA in can linings; and
- Generate solutions for moving the market toward informed substitution and safer, non-BPA alternatives for canned food linings.

Health concerns related to BPA Exposure

- Bisphenol A (BPA) is a toxic, endocrine-disrupting chemical that negatively impacts our hormonal systems, contributing to a host of harmful health effects.
- More than 300 animal and human studies have linked extremely small amounts of BPA, measured in parts per billion and even parts per trillion, to an increased risk of breast and prostate cancer, infertility, type-2 diabetes, obesity, asthma, and behavioral changes including attention deficit disorder.
- It is likely that people are exposed to BPA from canned foods at levels that are compromising our health.

Study Design & Experimental Methods



State	Group
Alaska	Alaska Community Action on Toxics
California	Breast Cancer Fund Lideres Campesinas en California
Connecticut	Clean Water Action
Florida	Clean Water Action
Maryland	Maryland PIRG
Massachusetts	Clean Water Action
Maine	Environmental Health Strategy Center
Michigan	Ecology Center
Minnesota	Healthy Legacy Coalition
New Jersey	Moms Clean Air Force
New Mexico	Los Jardines Institute
New York	Clean and Healthy NY
Oklahoma	Learning Disabilities Association (LDA) of Oklahoma
Oregon	Oregon Environmental Council
Rhode Island	Clean Water Action
Texas	Texas Campaign for the Environment Texas Environmental Justice Advocacy Services (TEJAS)
Vermont	Vermont Conservation Voters
Washington	Washington Toxics Coalition
West Virginia	People Concerned for Chemical Safety
Ontario, Canada	Environmental Defense

Can Sample Collection

22 NGOs in 19 U.S. states and one province in Canada (Ontario) participated

- Each group was assigned 5-16 canned foods to purchase from specified retailers and national brands.
- 192 cans were purchased from 22 retail stores, representing 17 retail companies.
- 68 brands from 44 food manufacturing companies.

Cans were chosen to include:

- Top national and regional retailers, including dollar stores
- Private-label brands and top national brands
- Mainstream grocers, budget grocers, high-end grocers
- Tomato and bean products for all brands.

The interior body and lid of each can was tested using ATR-FTIR spectroscopy to identify the lining type.



FTIR has been used for many decades to identify unknown materials, including polymers.

Examples of FTIR used for food can coatings:

Manfredi, LB, Gines, MJL, et al. (2004). Use of epoxy-phenolic lacquers in food can coatings: Characterization of lacquers and cured films. J. Appl. Polym. Sci., 95, 1448-1458.

Biles, JE, White, KD, McNeal, TP and Begley, TH. (1999). Determination of the diglycidyl ether of bisphenol A and its derivatives in canned foods. J. Agric. Food. Chem., 47(5), 1965-9.

	2	cology Center Recycle Ann Arbor	HealthyStuff.org		or B LOBORT
(E)	Carnation Evaporated Milk	EPOXY			
	Chef Boyardee Mi Ravioli	ACRYLIC, PVC, POLYESTER			
	Clover Valley Asparagus	EPOXY			
(F: A)	Clover Valley Blac Beans	k EPOXY		Da	
	Clover Valley Blac Beans	k ACRYLIC, EPOXY			
*	Clover Valley Cut Green Beans	POLYESTER			0
-	Clover Valley Light	t			

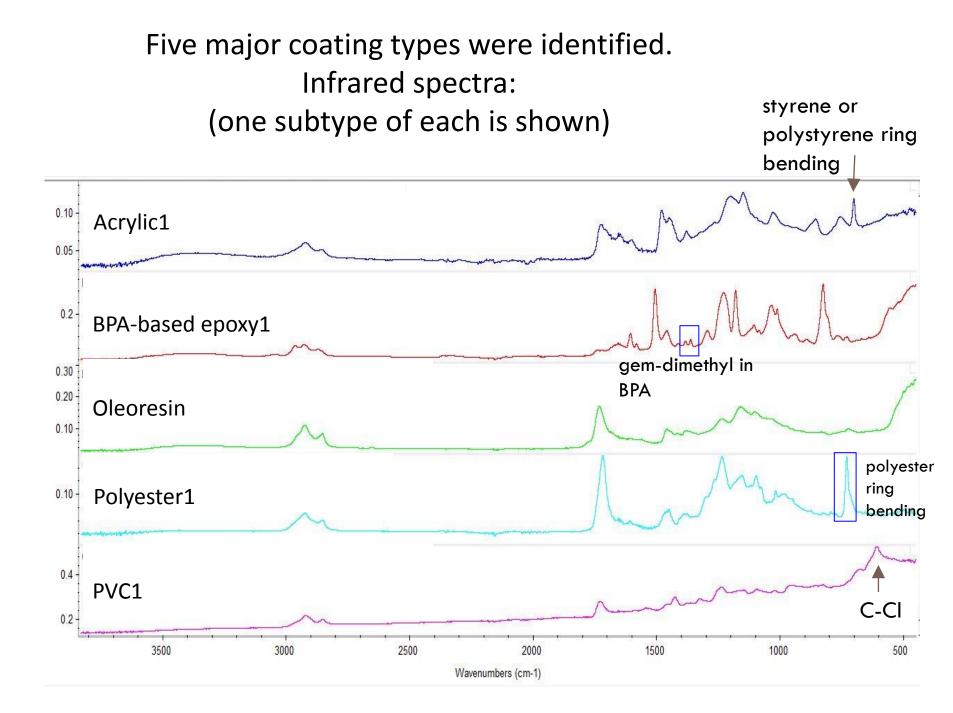


Table 4. Major coating types and subtypes identified by FTIR spectroscopy in this study

Major coating type	Subtypes
Acrylic resins	Styrene-Acrylic1 Styrene-Acrylic2 Acrylic3
BPA-based epoxy *	BPA epoxy1 BPA epoxy2
Oleoresin	Oleoresin
Polyester resins	Polyester1 Polyester2 Polyester3 Polyester4
PVC copolymers	PVC1 PVC2

* BPA is one of a chemical class called bisphenols. Spectral features unique to BPA in our FTIR data indicate that, in the cans we tested, these coatings are indeed based on BPA, not on other common bisphenols such as BPS or BPAF. The coatings we call "BPA-based epoxy" or "BPA epoxy" in this report are often called simply "epoxy resins" in other literature about canned foods. NOTE: More information about each Subtype can be found in **Table 6** in the report.

Table 9: Distribution of coatings

Coating type	% of cans (n=192) *				
Containing Acrylic Resin	41%				
Containing BPA Epoxy	67%				
Containing Oleoresin	11%				
Containing Polyester Resin	30%				
Containing PVC Copolymer 25%					
*Many cans were coated with more than one of the above coating types. Therefore the percentages add up to more than 100%.					

Coatings were found both as **single coating** types and in **combination** with other coating types (example: BPA epoxy+Styrene acrylic).

Table 6. Descriptions of the coating types					
Major coating type	Subtypes	Description			
Acrylic resins	Styrene-Acrylic1 Styrene-Acrylic2 Acrylic3	Two of the coating subtypes contain polystyrene. It is not known if they contain residual styrene or other monomers. Several different monomers, all of which have health concerns, can be used to form acrylic-based resins.			
BPA-based epoxy	BPA epoxy1 BPA epoxy2	These coatings use BPA as a starting ingredient, along with many other chemicals. Some versions include formaldehyde. Melamine-formaldehyde resins are sometimes used as cross-linkers. ^{102, 103} Melamine can migrate from can coatings into foods. ¹⁰⁴			
Oleoresin	Oleoresin	Also called oleoresinous c-enamel. Plant oils, particularly tung oil and linseed oil, are blended with a hydrocarbon resin. The source of the hydrocarbon resin may be petroleum. ¹⁰⁵			
Polyester resins	Polyester1 Polyester2 Polyester3 Polyester4	These are not the same as polyethylene terephthalate (PET) plastic, which is also called polyester. A large number of monomers can be used to form polyester resins. Melamine-formaldehyde resins or polyisocyanates, both of which have health concerns, are sometimes used as cross-linkers. ¹⁰⁶			
PVC copolymers	PVC1 PVC2	PVC is blended with other polymers to make can coatings. ¹⁰⁷ We did not determine the copolymers present. We used XRF to verify that these coatings contained the element chlorine, as expected for PVC. The possible plasticizers in the PVC-based can coatings were not identified. We did not see the spectral signature of phthalates in the coatings.			

Food Category & Coating Types

- BPA-based epoxy resin was the only coating type detected in some portion of all food categories tested.
- The corn and peas category was the least likely overall to contain BPA-based epoxy resin, either as a single coating or in combination with another coating, and the most likely to contain oleoresin.
- Broth and gravy cans were the most likely overall to contain BPA-based epoxy. All broth/gravy can bodies were coated with either epoxy (40 percent of broth/gravy bodies) or an epoxy+acrylic combination (60 percent of broth/gravy bodies). Broth/ gravy lids were 80 percent epoxy coated.
- Canned milks (including evaporated, sweetened condensed and coconut) also had a high frequency of BPA-based epoxy (85 percent of bodies and 45 percent of lids).
- PVC copolymers were used infrequently as single coatings except in tomato products: 41 percent of tomato can bodies and 41 percent of lids were coated with PVC. All other foods had a much lower frequency of PVC copolymer as a

Regrettable Substitution

We found that 18% of retailers' private-label foods and 36% of national brands were lined with a PVC-based copolymer.

This is clearly a regrettable substitute, because PVC is a polymer made from vinyl chloride, a known carcinogen.

We found that 39% of cans had a polystyrene-acrylic combination.

- Similarly, many of the acrylic linings included polystyrene, a plastic made from the styrene monomer which is considered a possible human carcinogen. All plastics contain some level of residual or unreacted monomer.
- Data is not publicly available to indicate at what level monomers like vinyl chloride or styrene migrate from the can linings into food.
- For the other coating types, the lack of safety data and unknown additives mean we have no reliable data attesting to the safety of these BPA-free compounds.



Because with great market power comes great responsibility.

www.toxicfoodcans.org

Food Cans Tested from Retailers – Private Label and Brands

Grocery retailers

 Albertsons (Randalls, Safeway), Aldi, Kroger, Meijer, Publix, Trader Joe's, Wegmans, Whole Foods

Big box retailers

Target, Walmart (U.S.)

Dollar Store retailers

- Dollar General, Dollar Tree, Family Dollar
- This concern is compounded by the fact that discount retailers are often the major retail outlet in low-income communities that lack access to diverse and fresh food choices (food deserts) and that have already been shown to have the highest BPA exposures.

Canadian retailers

The Fresh Co. (Sobeys), Loblaw, Walmart (Canada)

BPA in Retailers' "Private Label" Food Cans



Collectively

of retailers' private label or generic brand food cans tested positive for BPA in linings.

Including...

KROGER ALBERTSON'S TARGET WALMART PUBLIX DOLLAR GENERAL DOLLAR TREE

To learn more, visit www.ToxicFoodCans.org.



BPA <u>still</u> in Kroger cans?!

Yuck! New report reveals BPA in 62% of Kroger's private label food can linings tested.

> TAKE ACTION AT Mind Store MINDTHESTORE.ORG

Surveys of Retailers' Policies on BPA and Substitution

Grocery retailers

Albertsons (Safeway), Aldi, Kroger, Meijer, Publix, Trader Joe's, Wegmans, Whole Foods

Big box retailers

Target, Walmart (U.S.)

Canadian retailers

The Fresh Co. (Sobeys), Loblaw, Walmart (Canada)

Survey Questions

- Do you use bisphenol A (BPA) to line your canned foods?
- If so, do you have a timeline and plan in place to phase out your use of BPA?
 Please describe and/or attach any policy you have in place.
- What percentage of the canned food that you use contains BPA?
- If you are not using BPA, what chemicals and chemical additives are used in your canned food linings (e.g. vinyl, oleoresin, etc.)?
- Have you or your suppliers conducted an alternatives assessment (using for example a tool such as the <u>GreenScreen for Safer Chemicals</u>) of the BPAalternative chemicals used to line your canned linings?
- Who is the supplier(s) of your canned food linings?

Retailer	Currently using BPA in canned goods?	Currently using a BPA alternative in canned goods?	Goal to re- duce or phase out BPA in canned food?	T meline i i place to phase ou t 3PA?	Brands/Products with BPA or non-BPA liners?	Typr (s) of NPA alte native() being used'i	Has this company ever or nducted a Green Screen® or other alternatives assessmen of their can lining?
Albertson's (Albertson's and Safe- way)	YES	YES	YES	NO	O Organics soups	A eptic pour curtons on some products	NA
Aldi	YES	YES	NO	NO	NA	I IA	1 <mark>A</mark>
The Fresh Co. (Sobeys)****	NO RESPONSE**	NO RESPONSE	NO RESPONSE	NO RESPONSE	NO RESPONSE	NO RESPONSE	IO RESPONSE
Kroger	YES	YES	YES	NO	"All Simple Truth Organic canned products are packed in non BPA liners. 75% of our Banner Brand canned fruit has transitioned or is transitioning to non BPA liners by the end of 2015. Some Banner Brand canned vegetables have transitioned or are transitioning to non BPA liners by end of 2015, however, due to the acidity for some canned vegetables there currently isn't a viable alternative to BPA."	Dleoresin and hon-epoxy can iners	NO
Loblaw	NO RESPONSE	NO RESPONSE	NO RESPONSE	NO RESPONSE	NO RESPONSE	NO RESPONSE	NO RESPONSE
Meijer	NA	NA	NA	NA	NA	NA	NA
Publix	YES	YES	YES	NO	NA	NA	NA
Target	YES	NA	NO	NO	NA	NA	NA
Trader Joe's	NO RESPONSE	NO RESPONSE	NO RESPONSE	NO RESPONSE	NO RESPONSE	NO RESPONSE	NO RESPONSE
Walmart US	NA	NA	NO	NO	NA	NA	NA
Walmart Canada	NA	NA	NA	NA	NA	A	NA
Wegmans	YES	YES	YES	NO	"Some Wegmans brand canned products (such as, but not limited to, tomatoes, some vegetables, peaches, fruit cock- tail, and apricots) are now packed in BPA non-intent cans (produced without BPA) and have been tested for shelf-life and product quality."	ħΑ	ΝΑ
Whole Foods	YES	YES	YES	NO	"We have transitioned many of our private label products to BPA free packages, including our waters, our canned fish line, our coconut milks, our tomatoes, our canned pumpkin for the holidays, and new aseptic bean, soup, and broth packaging, and that number continues to increase as supplies of BPA free packaging increase."	Aseptic packaging	NA

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*NA: signifies no specific answer to our question ** No response: signifies that we received no response to our survey

Some Retailers Making Progress

- Albertsons (Albertsons and Safeway), Kroger,
 Publix, Wegmans, and Whole Foods have made
 progress in adopting policies to reduce the use of BPA
 in private label canned food.
- Of the retailers we surveyed Whole Foods has strongest policy: Whole Foods' store brands "buyers are not currently accepting any new canned items with BPA in the lining material."

Responses to Survey from Some Grocery Retailers

Kroger (#1 grocery chain in the U.S.)

"Kroger is working with its suppliers to transition to non BPA can liners in numerous categories. While we don't have a set timeline for all products, we continue to engage with suppliers to communicate our intent to transition to non BPA liners...Kroger has begun a process that we believe will result in the removal of BPA in the linings of canned goods in all of our corporate brand items. We recognize that this transition will take time as our suppliers and manufacturers are still researching and testing feasible alternatives...Kroger is surveying all of our corporate brand food suppliers to determine if BPA is present in product packaging."

Albertsons (#2 grocery chain in the U.S.)

"Albertsons Companies has been working with our Own Brand product suppliers to identify acceptable alternatives to packaging containing BPA. It is our desire as a company to use BPA- free packaging for as many products as possible." However, none of these retailers have timelines in place to complete a full transition away from BPA in canned food.

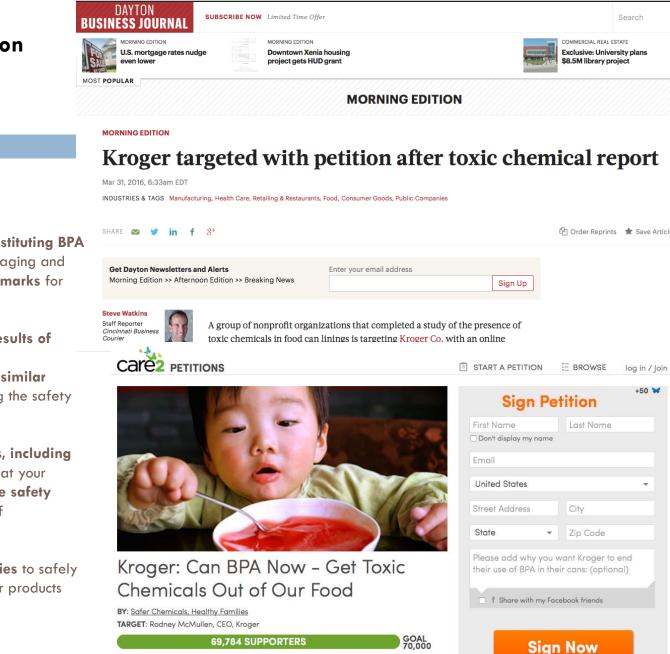
Nor have they required suppliers to conduct alternatives assessments to evaluate the potential hazards of BPA alternatives.

However some of the retailers indicated their suppliers have tested the alternatives or evaluated the alternatives in some manner for safety

Other Retailers Have No Policies in Place

- Aldi, Meijer, Target and Walmart responded to our survey which indicated they do not have policies to phase out BPA in canned food, unlike other competing retailers.
- Fresh Co. (Sobeys), Loblaw, Meijer, Trader Joe's, and Walmart Canada did not respond to our surveys in time for publication, despite our outreach and follow-up.

70,000+ People Sign Petition to Kroger Asking:



overview petition

A brand new report found 67% of nearly 200 food cans from dozens of brands and retailers tested positive for the toxic chemical bisphenol A (BPA), a hormone disrupting chemical linked

1) Commit to **eliminating and safely substituting BPA** from your food cans and other food packaging and **establishing public timelines and benchmarks** for your transition to safer alternatives.

2) Conduct and publicly report on the results of "alternatives assessments," using the GreenScreen® for Safer Chemicals or a similar third-party certification tool for assessing the safety of your can linings.

3) Label all chemicals used in can liners, including BPA or BPA alternatives; and demand that your suppliers of food can linings fully disclose safety data, so you can provide a higher level of transparency to consumers.

4) Adopt comprehensive chemical policies to safely replace other chemicals of concern in your products and packaging.

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Your personal information remains private. By signing, you accept Care2's terms of service. Having problems signing this? Let us know.

Dollar Stores also a focus



Campaign for Healthier Solutions - CHS Published by Eric Whalen [?] · 36 mins · @

We want toxic #BPA out of canned food! Tell DollarGeneral Dollar Tree Family Dollar 99¢ Only Stores that we want to serve our families food without the toxic chemicals found in can liners! #nontoxicdollarstores #toxicfoodcans http://salsa4.salsalabs.com/o/.../p/d.../action3/common /public/...



http://salsa4.salsalabs.com/o/51254/p/dia/action3/common/public/?action KEY=18198

Manufacturer	Currently using BPA in canned goods?	Currently using a BPA alterna- tive in canned goods?	Goal to phase out of BPA use?	Timeline in place to phase out BPA?	Brands/Products with BPA or non-BPA liners?	Type(s) of BPA alternative(s) being used?	Has this company ever conducted GreenScreen® or other alternatives assessment of their can lining?	
Amy's Kitchen	No	Yes	Yes, already achieved.	Phased out in 2012	all non-BPA	polyester, acrylic	No. There was no use of GreenScreen, an no listed safety assessment of ingredients	
Annie's Homegrown	No	Yes	Yes, already achieved.	Phased out in 2012	all non-BPA	polyester, acrylic	No. There was no use of GreenScreen, an no listed safety assessment of ingredients	
Campbell Soup	Yes	Yes	Yes	Full-scale conversion within 12-24 months	NA*	NA	No. There was no use of GreenScreen, and no listed safety assessment of ingredients	
ConAgra Foods, Inc.	Yes	Yes	Yes	Yes — has phased out all U.S. cans from BPA, and is working to move to non-BPA liners in cans from outside the U.S. and Canada by 2016	All U.S./Canada products are non-BPA, imported products like LaChoy (bamboo shoots, water chestnuts) and Libby's (corned beef and beef and gravy) still use BPA liners	polyester, acrylic	ConAgra states their BPA alternatives were reviewed by an 3rd party academ- ic council, but they have not used the GreenScreen or shared their data criteria for safety	
Del Monte Foods	Yes	NA	NA	NA	NA	NA	No. There was no use of GreenScreen, an no listed safety assessment of ingredients	
Eden Foods, Inc.	Yes, in 5% of products	Yes, in 95% of products- low-acid foods: beans, chili, and rice & beans.	Yes	No official timeline to move from BPA, but actively looking for alternatives	>95% low acid foods (canned beans, chilies, and rice & beans) have BPA-free linings, <5% high-acid items (toma- toes) use an epoxy with BPA	c-oleoresin	No. There was no use of GreenScreen, an no listed safety assessment of ingredients	
General Mills	Yes	Yes	NA	NA	Muir Glen moved to a non- BPA liner	NA	No. There was no use of GreenScreen, an no listed safety assessment of ingredients	
The Hain Celestial Group, Inc.	No	Yes	Yes	Phased out most products in 2014, actively look- ing for alternatives for 2 products with no official timeline	Phased out of use in 2014	modified poly- ester, modified acrylic, polyester enamel, oleoresin, and epoxy resin	No. There was no use of GreenScreen, an no listed safety assessment of ingredients	
H.J. Heinz Company	No Response**	No Response	No Response	No Response	No Response	No Response	No Response	
Hormel's	Yes	NA	NA	NA	NA	NA	NA	
J.M Smucker Company	Yes	NA	NA	NA	NA	NA	NA	
McCormick & Company, Inc.	Yes	NA	Yes	Working to eliminate BPA out of cans by 2017, and some products transition- ing as early as 2016	NA	NA	No. There was no use of GreenScreen, an no listed safety assessment of ingredients	
Nestlé S.A.	Yes	Yes	Yes	Started to remove BPA in 2009, and expect to have fully moved to BPA alternatives by the end of 2016	Carnation expected to be non-BPA by end of 1st quarter 2016, Libby's cans are ex- pected to move to a non-BPA alternative by the end of 2016	polyester, others not described	Nestlé uses bioassays to test packaging extracts, and is in line with the Guidance Document published by the International Life Sciences Institute. It does not use the GreenScreen process.	

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*NA signifies no answer to our question $^{\star\star}No$ response signifies that we received no response to our survey

National Brands Surveyed

- Amy's Kitchen
- Annie's Homegrown
- Campbell's
- ConAgra
- Del Monte Foods
- Eden Organic
- General Mills

- Hain Celestial
- Hormel Foods
- 🗆 H.J. Heinz
- J.M. Smucker
- McCormick & Company
- Nestlé

Survey Responses

□ 12 out of 13 manufacturers we surveyed responded to our survey

- 5 out of 13 manufacturers we surveyed responded they had fully transitioned out of BPA use, and 6 out of 13 manufacturers we surveyed responded with the types of BPA alternatives they currently use
- 3 out of 13 manufacturers we surveyed responded with timelines to move away from BPA use
- O out of 13 manufacturers we surveyed were willing to publicly disclose safety data for the BPA alternatives they were using or moving toward.

Campbell's, Del Monte and General Mills fared the worst



The Mercury News

March 30, 2016: Del Monte, Campbell's go BPA-free amid consumer concerns for health

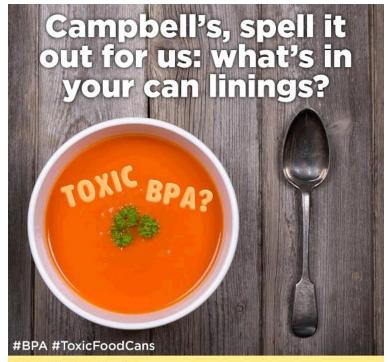


• March 28, 2016: Campbell to remove BPA chemical from its cans by mid-2017

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A step in the right direction...but not far enough!

15 out of 15 cans tested positive for BPA epoxy resin



TOXICFOODCANS.ORG

Campbell's announcement lacked some important commitments

- Not everyone benefits from their plan.
- Consumers are left waiting and wondering.
- Informed Substitution is missing.
- They did not adopt a formal safe packaging chemical policy

BPA Free May Not Mean Safe

Identifying the safety of BPA alternatives is challenging for consumers <u>and</u> manufacturers, given very real supply chain obstacles:

- The problem: Upstream suppliers are holding a tight grip on the information manufacturers need to achieve the level of transparency the public wants regarding ingredient disclosure and safety information.
- The solution: The entire canned food industry supply chain needs to value and promote consumer right to know, informed substitution and transparency.

We are thankful for everything you do to decrease environmental exposures linked to breast cancer. After all, our lives are precious!



National brands, grocery stores, big box retailers and dollar stores should take these steps:

- 1. Commit to eliminating and safely substituting BPA from all food packaging, replacing it with safer alternatives, and establishing public timelines and benchmarks for the transition.
- 2. Conduct and publicly report on the results of "alternatives assessments," using the GreenScreen® for Safer Chemicals or a similar third-party tool for assessing the safety of can linings.
- 3. Label all chemicals used in can liners, including BPA or BPA alternatives; and demand that their suppliers of canned food linings fully disclose safety data, so as to provide a higher level of transparency to consumers.
- 4. Adopt comprehensive chemical policies to safely replace other chemicals of concern in products and packaging.

Can-lining suppliers need to see themselves as part of the solution by publicly disclosing the chemical composition of their can linings and ensuring that the final materials have been rigorously assessed for their impacts on environmental and human health.



The GreenScreen® Challenge

Step 1 – Contact Clean Production Action

Contact <u>us</u> to learn more about the Challenge and indicate your interest in joining the initiative.

Step 2 - Identify chemical ingredients in proposed can-lining alternatives

Work with your suppliers to identify the chemical ingredients – including polymers, additives and/or resins -- used in your can-lining materials. If your suppliers are not willing to fully disclose all ingredients used in your materials due to confidentiality concerns, enlist an independent third-party <u>Licensed GreenScreen Profiler</u> to help complete this process.

Step 3 – Assess hazards of can-lining alternatives

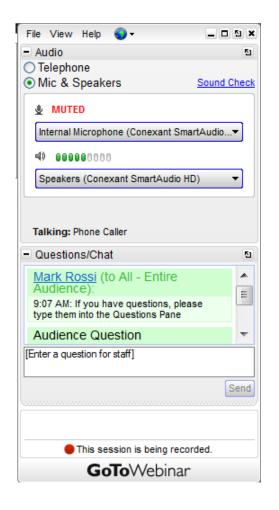
Partner with CPA and a Licensed Profiler to assess hazards of your can-lining material using GreenScreen. The process will ensure protection of confidential business information as necessary.

Step 4 - Communicate assessment findings

To the fullest extent possible, publicly disclose results of the GreenScreen assessments.

Visit: http://www.greenscreenchemicals.org/practice/gs-challenge

Questions?



Post your question to the Questions pane in your GoToWebinar Control Panel

Any unanswered questions can be asked at <u>ops@cleanproduction.org</u>

Presentation and recording will be available at <u>www.cleanproduction.org</u>