

December 8, 2017   UPDATED 12/8/2017

# Study finds cadmium in some imported PVC packaging, but overall results 'encouraging'

By [JIM JOHNSON](#)



Sustainability

Packaging



Calendering

Extrusion

Film & Sheet



New testing shows lower levels of cadmium and the elimination of lead in a sampling of imported flexible PVC packaging compared with previous analysis, according to a new report from the Toxics in Packaging Clearinghouse.



**TOXICS IN PACKAGING  
CLEARINGHOUSE**

But results also indicate nearly one in every five packages tested in the latest round of work failed to comply with standards set in several states.

Cadmium remains an issue with imported PVC packaging, primarily from China, where 21 of 109 packaging samples had concentrations higher than the allowable threshold of 100 parts per million. The clearinghouse also tests for lead

## Newsletter Signup

**Sign up for the PN Daily Report**

**SUBMIT**

[More PN Newsletters >>](#)

## Most Popular

[Material Insights: Students turn human waste into bioresin for NASA](#)  
**VIDEO** | Monday, December 11

[Graham Partners buys thermoformer Tray-Pak Corp.](#)  
**NEWS** | Friday, December 08

[News analysis: ZF CEO's 'reckless' buying spree led to his departure](#)  
**NEWS** | Friday, December 08

[Valencia building Arizona ABS pipe plant](#)  
**NEWS** | Monday, December 11

[Dow spin-off decks halls with lightweight composite](#)  
**NEWS** | Monday, December 11

clearinghouse also tests for lead, mercury and hexavalent chromium. The four metals are restricted by laws in several states.

Testing found that 19.3 percent of the 109 samples failed for cadmium concentrations, including five that had 100 to 200 ppm, nine that had 201 to 300 ppm, three with 301-400 ppm, two with 401-500 ppm, and one each with 501-600 ppm and 701-800 ppm.

“We’re very happy we didn’t find any lead this year. That’s definitely an improvement. We are disappointed that we still see cadmium at a very significant level, but it’s definitely good that it’s declining,” said John Gilkeson, chair of the clearinghouse and a toxics reduction specialist with the Minnesota Pollution Control Agency.

Minnesota is one of the nine members of the clearinghouse. A total of 19 states have laws that address the use of the metals in packaging.

The latest numbers  are from imported packaging collected in 2014 and 2015 and tested in 2015, Gilkeson said. The clearinghouse spent 2015 and much of 2016 reaching out to companies that used packaging that did not meet standards. Much of the last year has been used to prepare the recently released report.

The clearinghouse last tested flexible PVC packaging in 2008, when 71 samples were collected, and 55 percent of those failed for having elevated levels cadmium or elevated levels of cadmium with the presence of some lead. No samples that year failed for lead only, and no samples in the

## Sponsored Content

**12 Things You Need To Beware of While Slow Cooking With Crock Pot** (Daily Crock) 

**Celebrity Trainer Reveals Simple Secret To Build Big Muscles Fast** (mensmuscle.life) 

**7 Signs Your Liver is in Bad Condition** (Hale Hearty) 

**Men Above 45: 'Erase' Your Wrinkles With This 1 Simple Secret** (eternalman.today) 

**How Exercise Can Help Fight Cancer** (Healthgrades) 

Recommended by 

latest round had any lead.

Gilkeson cautioned that the results are simply a snapshot of the packaging the clearinghouse collected.

“This is a random sample of products and packaging, and so luck may have it that we selected a group of products and packaging this year that was lower (than previous tests) or potentially even higher than average,” he said.

All the non-compliant packaging that was tested by the clearinghouse came from China, Gilkeson “as far as we know.”

Vinyl Institute spokeswoman Susan Wade complained that TPCH’s report, and more specifically a news release announcing the findings, did not emphasize enough that none of the packages tested positive for lead, and that all of the U.S.-sourced film passed the tests.

“The Vinyl Institute appreciates that TPCH took into consideration our comments and incorporated many of them into their report. However, we would like to point out that TPCH’s report, and specifically its press release about the report findings, misses the fact that PVC packaging sourced in the United States has not contained lead or cadmium for more than a decade,” Wade said.

“Much of the packaging tested for this report was foreign sourced, a fact that is also acknowledged by TPCH. Regrettably, TPCH fails to mention [in the news release] that no lead was found in those samples, which needlessly leaves people with an

incorrect perception of PVC products," Wade said.

The clearinghouse used x-ray fluorescence analysis to test the packaging. Flexible PVC is commonly used for products such as pet supplies, home furnishings, sporting goods and personal care items due to its strength and the ability to attach closures such as zippers or snaps, Gilkeson explained. The clearinghouse has never found an issue PVC flexible packaging made domestically.

"The levels found by TPCH may be functional levels as stand-alone additive or part of a mixture, or they could be non-functional impurity or contaminant levels in an additive. Most PVC additives work as plasticizers to provide resin flexibility or as stabilizers that maintain integrity of the packaging and therefore, it's retail shelf life," the report states.

While the clearinghouse also tests for mercury and hexavalent chromium, those two metals have not been found in three rounds of testing over the years, including the initial work in 2006.

"The results of the current screening project are encouraging since lead was not found and cadmium was present at lower non-compliant levels in about 20 percent of the total sample population," the report states.

"However, the results of the current screening project confirm that cadmium is still present in flexible PVC, either at functional levels or as a contaminant in an additive or mixture."

"Product manufacturers and

distributors must remain vigilant when purchasing flexible PVC packages or packaging components, or products packaged in this material,” the report continues.

Said Gilkeson: “We still see cadmium at a very significant level, but it’s definitely good that it’s declining.”

“Hopefully, the next time we do this we’ll see a continuing downward trend.”

**Plastics News  
Recommends**

**Sponsored  
Content**

**Material Insights:  
Sabic delivery**

**San Jose, California:  
This Brilliant**

[problems persist](#) ↗

**The next plastics boom could be around the corner**



**Tooling companies brace for a crash** ↗

**North Carolina revoking Chemours' permit to discharge processed wastewater** ↗

**Lanxess expanding 'high-tech' plastics production in China**



**Company Is**

**Disrupting a \$200**

**Billion Industry**

(EverQuote) ↗

**7 Daily Tips for**

**Living With COPD**

(Healthgrades) ↗

**10 warning signs of**

**Alzheimer's**

(Healthgrades) ↗

**This Type Of Meat**

**Causes Dementia?**

(howtoprotectyourbrain.co



**HIV Advocates**

**Weigh In On What Is**

**Fueling The**

**Epidemic In Black**

**America** (The Body)



Recommended by Outbrain



## This week's issue

Latest news impacting the global plastics industry

### Past Issues

Dec. 4, 2017  
Nov. 27, 2017  
Nov. 20, 2017

[SUBSCRIBE](#)

## Sign Up

Your E-mail

[SIGN UP](#)

Breaking news and in-depth coverage of essential topics delivered straight to your inbox.

[VIEW ALL NEWSLETTERS](#)

## Connect with us

Register to access our archive of leading information on the Plastics industry



[Follow @plasticsnews](#)

[About](#) | [Staff](#) | [Editorial Calendar](#) | [Media Kit](#) | [Research](#) | [Custom Content](#) | [People](#) | [Contact](#)

Related Crain Publications:

[Rubber&Plastics News](#)

[TIRE BUSINESS](#)

[EUROPEAN RUBBER JOURNAL](#)



[LSR WORLD](#) [Plastics News Europe](#)  
[Plastics News China](#)

Copyright © 2017 Crain Communications, Inc. | [Privacy](#) | [Terms](#)