



NEWS RELEASE

New Report Raises Questions About Safety of Using PVC Plastic Pipes for Drinking Water

\$15 Billion in New Federal Dollars Provided to Local Governments to Replace Toxic Lead Pipes

Toxic Train Derailment in Ohio Highlights Problems with Vinyl Chloride Used to Make PVC

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In a [report released today](#), Beyond Plastics warns of the human health risks of polyvinyl chloride (PVC) plastic, recommending state and local officials avoid using the material for their communities' water pipes. The Biden administration and Congress is providing \$15 billion to municipalities that need to replace toxic lead service lines, yet the EPA has not offered guidance around what piping materials should be used to prevent homes from swapping one problematic material for another.

The report also focused on the health and environmental risks associated with the production of vinyl chloride, which is mostly used to make polyvinyl chloride plastic. The production typically takes place in low-income communities and/or communities of color in Louisiana, Texas, and Appalachia. Vinyl chloride was classified as a human carcinogen in 1974 and was banned for use in hair sprays and cosmetics. Forty-nine years later, vinyl chloride is still widely used in packaging, building materials, toys, and pipes that deliver drinking water to residents every day.

The report — co-published with Environmental Health Sciences and the Plastic Pollution Coalition — reviewed the published literature and examined the potential impacts on human health when the chemicals in PVC leach into drinking water. The analysis raises concerns for state and local officials who will determine how to replace lead pipes in their communities, as well as for the residents who will be using the water that flows through those pipes. It identifies recycled copper and stainless steel pipes as preferable alternatives. Although these materials are slightly more expensive than PVC plastic, the majority of the cost of lead service line replacement projects is from labor and digging up streets, not from the cost of the piping.

“Before spending \$15 billion of taxpayer dollars, there needs to be meticulous, independent testing done to verify the safety of replacement piping materials. This data must be made publicly available to enable Americans to avoid a new threat from their faucets,” said Judith Enck, president of Beyond Plastics and former EPA regional administrator under the Obama administration. “While I strongly support the replacement of lead service lines, we need to know that the replacement pipe material is safe, and there’s definitely not enough scientific evidence to suggest that PVC is. In fact, even the U.S. Plastics Pact — a group endorsed by companies that produce 33% of U.S. plastic packaging — has identified PVC as a ‘problematic and unnecessary’ material and has made a voluntary commitment to stop using it in plastic packaging by 2025. Drinking water is a more common exposure route to the toxic chemicals in PVC than almost anything else, unless you happen to live in East Palestine, Ohio.”

The recent train derailment in East Palestine, Ohio, is a vivid example of the threat that PVC and its essential ingredient, vinyl chloride, poses to Americans, though this toxic chemical has been impacting human health for decades. Beyond Plastics recently [released a video](#) providing a unique first-hand look at what it’s been like for East Palestine residents to have their lives suddenly upended in such an unexpected way, and it’s also [calling on the EPA](#) to ban vinyl chloride.

As with all plastic products, PVC plastic contains chemical additives, some of which are known to be toxic to humans and many of which have yet to be tested for safety. Just as the chemicals in food packaging can leach into food, the chemicals in PVC pipes can leach into drinking water, including endocrine-disrupting chemicals that can harm children and developing fetuses at very low levels. Additionally, there are no existing drinking water standards that factor in the cumulative burden of exposure to these chemical mixtures. Chemical leaching has also been found to vary by product formulation, and manufacturers are not required to disclose the chemical ingredients of their pipes, nor report their chemical release testing data.

Beyond Plastics today hosted a news conference around the report with a team of experts:

- Dr. Shanna Swan, an environmental and reproductive epidemiologist, Mount Sinai professor, and senior scientist at Environmental Health Sciences;
- Amanda Kiger, executive director at River Valley Organizing, an Ohio River Valley-based community organization working on the train derailment issues in East Palestine, Ohio;
- Mike Schade, Mind the Store campaign director at environmental health research and advocacy organization Toxic-Free Future; and
- Judith Enck, president of Beyond Plastics and former EPA regional administrator under the Obama administration.

"Exposure to PVC and the toxic chemicals it contains (phthalates, BPA and others) puts exposed communities at risk of a range of known and suspected health effects. These toxic chemicals are particularly risky during early pregnancy, when they can interfere with the body’s own hormones and permanently disrupt reproductive and neurodevelopment. At no time should these chemicals contact our drinking water supply." —**Dr. Shanna Swan, professor at the Icahn School of Medicine at Mount Sinai**

"Vinyl chloride was designated a likely human carcinogen 49 years ago, and still we have massive amounts of it being transported around the country. The people of Ohio and Pennsylvania know the risks better than anyone since that was the chemical that was set on fire and burned throughout our region after the February 3 toxic train derailment. It is alarming that

this is the chemical used to make PVC plastic pipes to deliver drinking water. We need to stop using vinyl chloride for pipes and other products." —**Amanda Kiger, co-director of River Valley Organizing in Ohio**

"It is deeply troubling that more than 10 billion pounds of vinyl chloride are produced in a year, and low-income communities and communities of color are bearing the brunt of these harmful exposures — but that's exactly what our latest investigation finds. We all know that lead is toxic, but so is PVC pipe, which is known as the poison plastic. If EPA is truly committed to environmental justice, they would ban local and state governments from using PVC pipe to replace lead service lines." —**Mike Schade, director of Mind the Store, a program of Toxic-Free Future**

"The 'Perils of PVC Plastic Pipes' report identifies the numerous ways that toxic PVC plastic and its hazardous ingredients — including vinyl chloride — cause serious harm to people and the environment all along the plastics pipeline. From production to transportation, use to disposal, PVC, like all plastic, pollutes and interferes with the basic human right of safe, clean drinking water for all. Communities shouldn't have to trade off between toxic lead and toxic plastic pipes when there are existing safer alternatives to PVC and CPVC. As billions in federal funds are now being used to replace lead water service lines across the U.S., local and state officials and the EPA must work together to ensure communities are kept safe and healthy by providing filtered, not bottled, water during the process, and by replacing lead lines with nontoxic materials — not plastic pollution." —**Julia Cohen, MPH, Co-Founder and Managing Director of Plastic Pollution Coalition**

For the full report and other materials, please visit <https://www.beyondplastics.org/publications/perils-of-pvc-pipes>

About Beyond Plastics

Launched in 2019, Beyond Plastics is a nationwide project that pairs the wisdom and experience of environmental policy experts with the energy and creativity of grassroots advocates to build a vibrant and effective movement to end plastic pollution. Using deep policy and advocacy expertise, Beyond Plastics is building a well-informed, effective movement seeking to achieve the institutional, economic, and societal changes needed to save our planet and ourselves, from the negative health, climate, and environmental impacts for the production, usage, and disposal of plastics.

You can view and download the organizations' news release [here](#).

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