



July 15, 2024

Pete Participant
123 No Street
East Palestine, OH 44413

RE: Indoor Air Sampling Results

Dear Mr. Participant,

Thank you for your participation in the University of Kentucky East Palestine Health Tracking Study and the Indoor Air Sampling Pilot Study. I am writing to share with you the results from the air sampling that was conducted at 123 No Street from 4/19/2024-4/26/2024. Air samples were analyzed for several volatile organic compounds (VOCs). Two of these chemicals, butyl acrylate and 2-ethylhexyl acrylate, were on the railcars that derailed on February 3, 2023 and the others are commonly found in US homes and buildings. Air samples were analyzed by Wayne State University's CLEAR Laboratory.

Your VOC Levels

All of the VOCs measured in your indoor air were at levels commonly found in US homes and buildings and well below the US EPA's Reference Concentration (RfC). The RfC is the level at which long term exposure to the chemical could result in health concerns. Your location's specific VOC data is provided in the table below alongside the EPA RfC.

VOCs	Your Test Result (µg/m3)	EPA RfC (µg/m3)
2-Ethylhexyl Acrylate	Not detected	No RfC
Butyl Acrylate	Not detected	No RfC
Benzene	Not detected	30
Toluene	0.9	5000
Ethylbenzene	0.2	1000
Xylene	0.7	100
Tetrachloroethylene (PCE)	0.1	40
Trichloroethylene (TCE)	Not detected	2.0

Not detected: Below level of detection for the instrument

No RfC: The EPA currently does not have a health standard for the chemical

Blue rows: Butyl acrylate and 2-ethylhexyl acrylate are chemicals that were on the railcars that derailed.

Green rows: BTEX (Benzene, Toluene, Ethylbenzene, Xylene) is a group of common hazardous volatile organic compounds (VOCs) that are found in gas, vehicle exhaust, cigarette smoke, and solvents. Short-term exposure to elevated levels of BTEX is associated with skin/eye/nose irritation, rashes, dizziness, fatigue, and headaches.

Orange rows: Tetrachloroethylene (PCE) and Trichloroethylene (TCE) are chemicals found in solvents, including dry cleaning and some cleaning agents.

Typical VOC levels in US homes and buildings

Overall, VOCs are typically measured in indoor air in homes and business across the US. Specifically, BTEX (Benzene, Toluene, Ethylbenzene, Xylene) can be found in most US indoor air at levels well below the EPA RfC and Tetrachloroethylene (PCE) and Trichloroethylene (TCE) can be found in about half of US buildings. However, butyl acrylate and 2-ethylhexyl acrylate are VOCs that are not commonly found in US indoor air.

Summary of all participants in the pilot study

The indoor air sampling for VOCs was conducted at 18 locations during April 2024 in the East Palestine, Ohio area.

- Butyl acrylate or 2-ethylhexyl acrylate were not detected at any of the sampling locations.
- BTEX chemicals were detected at all locations at levels commonly found in US homes and buildings. All values were well below the EPA RfC.
- One location had Tetrachloroethylene (PCE) above the EPA RfC. We have contacted this resident to help identify potential sources in the home.

More information about US EPA Reference Concentrations

A RfC (US EPA's Reference Concentration) is the concentration of a chemical that is likely to not result in health risks with continuous inhalation exposure over a lifetime, including sensitive subgroups, such as children.

How can I learn more?

If you would like to learn more about specific VOCs, you can visit the ATSDR website at <https://www.atsdr.cdc.gov/toxprofiledocs/index.html>. Once at the website, scroll down and click on the chemical of interest, such as benzene. On the next page, select the link for ToxFAQs in the middle of the page. Some of the tested chemicals, such as butyl acrylate and 2-ethylhexyl acrylate, are not common and therefore not found on the ATSDR website.

We would be glad to answer any questions you have. If you are interested in discussing your results further, please contact me by phone 859-562-2119 or by email Erin.Haynes@uky.edu

We truly value and appreciate your participation and hope to work with you again!

Sincerely,



Erin N. Haynes, DrPH, MS
Kurt W. Deuschle Professor in Preventive Medicine and Environmental Health
Chair, Department of Epidemiology and Environmental Health