

TOXIC CHEMICAL SPILL IN OHIO U.S. SPARKS CONCERNS OF LONG-TERM HEALTH IMPACT

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Drone footage shows the freight train derailment in East Palestine, Ohio, U.S. | Photo Credit: NTSB via Reuters

It has been more than a week since multiple cars of a freight train carrying hazardous substances derailed near the village of East Palestine in Ohio, U.S., and locals are not convinced that the worst is over.

The incident occurred on February 3 when 38 freight cars of a Norfolk Southern Railroad-operated [train derailed in eastern Ohio](#) and caused a fire, covering East Palestine blanketed in smoke. The fire damaged 12 additional cars, National Transportation Safety Board (NTSB) said in a statement.

The train was carrying toxic substances in 20 cars, 11 of which were derailed. Most of them were carrying vinyl chloride, as well as butyl acrylate, ethylhexyl acrylate, and ethylene glycol monobutyl ether.

No fatalities or injuries have been reported so far. Officials said that a mechanical issue caused the derailment.

Authorities ordered a temporary evacuation of thousands of residents of the village. Fearing further explosion and spillage, officials decided to release toxic vinyl chloride from the derailed cars into a trench and burn it, sending columns of black smoke high up in the air.

The process involved using a small charge to create a hole in the derailed cars and drain the vinyl chloride into a trench and then burning it, Scott Deutsch of Norfolk Southern Railway [told Associated Press](#).

Locals on social media have reported dead animals on the streets and dead fish in streams in the area, and the incident has also left the residents concerned about soil, air and water quality.

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There have been numerous reports of dead animals all over Ohio. The Norfolk Southern train derailment is a major ecological disaster and people need to be criminally charged for this kind of gross negligence or it's doomed to repeat itself. [@POTUSpic.twitter.com/pZnSWMLmCz](https://twitter.com/POTUSpic/pZnSWMLmCz)

Vinyl chloride is a colourless industrial gas primarily used to manufacture polyvinyl chloride (PVC), a form of plastic fashioned as pipes and wire coatings, among other similar applications. According to the U.S. government's National Cancer Institute, vinyl chloride is associated with an "increased risk of a rare form of liver cancer (hepatic angiosarcoma), as well as primary liver cancer (hepatocellular carcinoma), brain and lung cancers, lymphoma, and leukaemia".

Vinyl chloride in the air breaks down in a few days and forms other harmful compounds, including hydrochloric acid, formaldehyde, and carbon dioxide, a public health statement by the Agency for Toxic Substances and Disease Registry (ATSDR) said.

Burning vinyl chloride — as happened after the , releases phosgene and hydrogen chloride into the air. Phosgene is extremely toxic; the Germany army used it as a chemical weapon during World War I. Hydrogen chloride is an irritant that affects the skin, the nose, the mouth, and the eyes.

An Environmental Protection Agency (EPA) press release said the government body hadn't noted any concerning health issues resulting from the derailment in the community. As of February 14, EPA had helped screen 396 homes in the area and reported detecting no vinyl chloride or hydrogen chloride. It said it is also monitoring the air round the clock, and working with local authorities to determine the impact of the spill on surface- and groundwater.

Some substances that spilled into a few waterways were toxic to fish but the [EPA claimed](#) the drinking water in the area hadn't been affected.

The authorities believe the worst is over — but people living in the area have voiced concerns about long-term degradation and the consequences of low-grade exposure to harmful substances that worsens over time.

The East Palestine village scheduled a town-hall meeting at a local school on February 15 to hear and respond to questions from the residents, [news agency AP reported](#).

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