

What Keyport's Past Reveals About America's Most Dangerous Chemicals



In 2025, the federal Agency for Toxic Substances and Disease Registry (ATSDR) released its updated Substance Priority List, ranking the chemicals that pose the greatest risk to human health. The list does not measure toxicity alone; it reflects a combination of danger, frequency, and likelihood of exposure.

At the top are substances like lead, arsenic, benzene, and vinyl chloride—names that recur in environmental disasters across the United States.

They also recur, quietly but persistently, in Keyport, New Jersey.

The ATSDR's highest-ranked substances share a pattern: they are durable, mobile, and difficult to remove. Many entered the environment during the industrial boom of the mid-20th century, when waste disposal practices lagged far behind chemical innovation.

Keyport's environmental history mirrors that era. From the 1960s through the late 1970s, a site now known as the Aeromarine landfill accepted a mix of municipal and industrial waste. Regulation was minimal, containment was limited, and over time, chemicals migrated outward—into soil, groundwater, and the Raritan Bay shoreline.

Decades later, many of the substances identified there align closely with those at the top of the ATSDR list.

Heavy Metals

Among the most concerning findings in Keyport are **lead** and **arsenic**, ranked first and second on the ATSDR list.

These metals do not degrade. Instead, they accumulate—first in soil and sediment, then in water, wildlife, and human bodies. Lead exposure is associated with neurological damage, particularly in children, while arsenic is a known carcinogen linked to cancers of the skin, lung, and bladder.

Recent reports of lead-containing debris washing onto Keyport’s beaches underscore how contamination can resurface long after disposal has ended.

Industrial Solvents

Keyport’s contamination history also includes **benzene** and **vinyl chloride**, both high-ranking ATSDR substances and both strongly associated with cancer.

These chemicals belong to a class known as volatile organic compounds (VOCs). They evaporate easily, travel through groundwater, and can infiltrate buildings as vapor—creating exposure pathways that are difficult to detect without specialized testing.

Vinyl chloride, in particular, has been linked to rare liver cancers, while benzene is a well-established cause of leukemia.

Persistent Organic Pollutants

Another class of concern is **polychlorinated biphenyls (PCBs)**, once widely used in electrical equipment and industrial processes.

Though banned decades ago, PCBs remain in the environment due to their chemical stability. They bind to sediments, accumulate in fish, and persist in human tissue. In Keyport, their presence reflects a broader pattern seen nationwide: *the lingering footprint of chemicals that outlast the industries that produced them.*

Fifty Years of Exposure

Keyport’s environmental timeline is not defined by a single event, but by a gradual accumulation of risk.

- **1960s–1970s:** Waste disposal at the Aeromarine landfill introduces a mix of hazardous substances
- **1980s–2000s:** Contaminants migrate into surrounding ecosystems, including groundwater and coastal sediments
- **2010s:** Environmental assessments confirm the presence of carcinogens and toxic metals
- **2020s:** Renewed concern emerges as contamination appears in visible forms, including shoreline debris

This pattern—initial release, slow migration, delayed recognition—is characteristic of many contaminated sites across the country.

The Cancer Cluster Question

In recent years, residents have raised concerns about a potential cancer cluster in areas near the former landfill. State health officials have begun investigating whether rates of certain cancers exceed expected levels.

Establishing a direct causal link between environmental exposure and disease is notoriously complex. It requires long-term data, careful statistical analysis, and an understanding of multiple contributing factors.

Still, the substances involved—lead, arsenic, benzene, vinyl chloride, PCBs—are among the most studied environmental carcinogens. Their presence alone does not prove causation, but it does establish a credible basis for concern.

What makes Keyport significant is not just its contamination, but its representativeness.

The same chemicals identified there appear repeatedly across the ATSDR list because they share key traits:

- Persistence in soil and water
- Mobility through air and groundwater
- Toxicity at relatively low levels

These traits ensure that once released, they remain part of the environment—and of human exposure pathways—for decades.

In my opinion, Keyport stands at a familiar intersection: between industrial legacy and modern accountability.

Cleanup efforts, regulatory oversight, and public health investigations continue, but they operate within the constraints of contamination that is already deeply embedded in the landscape.

The ATSDR list serves as a reminder that the most dangerous chemicals are not always the most visible. Often, they are the ones that persist—quietly shaping environmental and health outcomes over generations.

In places like Keyport, the past is not past. It remains, quite literally, in the ground beneath our feet.

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