Brieser CONSTRUCTION

Toolbox Talk

Benzene Awareness – November 5, 2025

What is Benzene?

Benzene is a colorless or light-yellow liquid at room temperature. It has a sweet odor and is highly flammable. The vapor, which evaporates very quickly off the liquid form of this hazard, is 2.5 times heavier than air and may collect in low-lying areas.

Nearly all of our client sites contain potential for exposure to benzene.

What are the health effects of exposure to benzene?

Benzene has been classified by the International Agency for Research on Cancer (IARC) as carcinogenic to humans. Long-term exposure to high levels of benzene in the air can cause leukemia, cancer of the blood-forming organs.

The major effect of benzene from long-term exposure is on the blood. Benzene affects the bone marrow's ability to produce red blood cells, leading to anemia and a depressed immune system. It can also cause excessive bleeding and can affect the immune system, increasing the chance for infection.

A short-term exposure can irritate the nose and throat. Symptoms may include headache, nausea, dizziness, drowsiness and confusion. A severe exposure can also cause unconsciousness.

How are workers exposed to benzene?

Benzene can be found on many local plant sites as it occurs naturally in crude oil and gasoline. It is also often held in pipelines or full tanks and is frequently present as it is being shipped, in large quantities, by trucks, rail, and boats.

The most common route of exposure to Benzene is through inhalation of the vapor, followed by absorption of the liquid through the skin.

- Outdoor air contains low levels of benzene from tobacco smoke, gas stations, motor vehicle exhaust, and industrial emissions.
- Indoor air generally contains levels of benzene higher than those in outdoor air. The benzene in indoor air comes from products that contain benzene such as crude oil and most versions of it's distillates.
- When excavating, benzene contaminated soil can cause a respiratory hazard. Remember benzene is heavier than air and will stay in the trench without adequate ventilation.
- If you are exposed to benzene, get to fresh air immediately, remove contaminated clothing by cutting it off, and wash your entire body and hair with soap and water. For eye exposure, flush your eyes with water for 10 to 15 minutes. Seek immediate medical attention, especially if you've ingested benzene or symptoms like dizziness or confusion appear
- If you are exposed to benzene vapors evacuate crosswind/upwind immediately. Stay out of low-lying areas. Some activities may require work around low level benzene vapors. In those cases make sure to wear adequate respiratory protection (full face respirator with organic vapor cartridges).

Administrative Controls:	Use stringent control measures such as process enclosure to prevent product release into the workplace. Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this product is used and stored.
Eye/Face Protection:	Wear chemical safety goggles and a face shield when contact is possible.
Skin Protection:	Wear chemical protective clothing e.g. gloves, aprons, boots.
Respiratory Protection:	At concentrations above the NIOSH* REL**, or where there is no REL, at any detectable concentration, use (NIOSH) approved respirators.

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