

FACT SHEET

Benzene

Benzene is a product derived from coal and petroleum that is commonly found in various fuels. Benzene is used in the manufacturing of plastics, pesticides, detergents, and other chemical products. This sheet describes the hazards associated with benzene and how to determine if a hazardous exposure is present.

Common causes of benzene exposure :

A common source of exposure is in the outdoor environment. This can be from automobile exhaust, gasoline fumes, factory emissions, and forest fires. Exposures also occur in various industries that utilize benzene in the production of other chemicals and materials. This can include the production of plastics, resins, lubricants, rubbers, pesticides, and detergents.

How can exposure to benzene affect my health?

Short term exposure of benzene can cause symptoms such as dizziness, drowsiness, headaches, tremors, confusion, unconsciousness, and in high levels death. Long term exposure can cause harmful effects to the bone marrow causing anemia. Benzene has also been classified as a human carcinogen that can cause various forms of leukemia.

What to do when exposed

- If benzene comes in contact with your eyes, flush the area with water for at least 15 minutes. For skin exposure, remove any contaminated clothing and wash the area with soap and water.
- If ingested, do not induce vomiting.
- If the exposure is life threatening, call 911. Otherwise, proceed to the Red Med Occupational Medicine Clinic.
- Report the incident to OEHS (801-581-6590).
- Fill out the "E-1 First Report of Injury Form" from the Human Resources website.

How can I reduce exposure?

- Eliminate the use of materials that contain benzene.
- Enclose any operation or perform experiments in a fume hood where feasible.
- Use of personal protective equipment (PPE) such as safety glasses or goggles, gloves, and lab coats is required.
- Respirators are only allowed when engineering methods are not feasible or fail to keep exposures below the PEL. Contact OEHS if you believe respiratory protection is needed.

OSHA benzene standard:

The permissible exposure limit (PEL) for benzene is 1 ppm, with an action level of 0.5 ppm measured for an eight-hour work day. The short-term exposure limit (STEL) is 5 ppm which is the maximum exposure allowed during a 15 minute period. If you work with benzene, exposure levels need to be measured. Contact OEHS to schedule an assessment.

What to do in case of a small spill:

- Stop work
- Get the lab spill kit. If your lab does not have a spill kit contact OEHS.
- Don the provided PPE, including: Gloves, Disposable Sleeves, Apron, and Goggles.
- Lay absorbent pads on the spill to soak up the benzene.
- Dispose of saturated pads into the provided bag. If dry absorbents are used, scoop the absorbed benzene with a dustpan into the provided bag.
- Wipe the surface with a damp paper towel and dispose in the provided bag.
- Place the bags in the bucket, remove the apron, sleeves, and gloves and place in the bucket. Seal with the lid and label the material.
- Wash your hands thoroughly with soap and water.
- Put in a request for OEHS to pick up the formaldehyde waste through the Laboratory Management System (LMS).

How do I dispose of benzene?

Do not pour benzene waste into sinks or drains. Benzene waste must be placed in a sealed labeled container. A waste pick up request should be submitted to OEHS through the Laboratory Management System (LMS). Print out



125 South Fort Douglas Blvd, Salt Lake City, UT 84113
801.581.6590 | oehs.utah.edu