



BENZENE

Agent Information:

Used for polymer, detergent, pesticide, pharmaceutical, dye, plastics, solvents and gasoline production as well as a chemical warfare agent; C₆H₆. Synonyms include benzol, coal tar naphtha, phenyl hydride, and cyclohexatriene.

Benzene is a highly volatile and flammable liquid. Its vapor is heavier than air and may accumulate in low-lying areas. Benzene's sweet aromatic odor generally provides adequate warning of hazardous concentrations for acute exposure. Benzene is toxicologically, part of a group of compounds known as hydrocarbons.

Signs and Symptoms:

Signs and symptoms vary depending on the route of exposure and level of the exposure. Benzene is mildly irritating to the skin, eyes and respiratory tract. Benzene may cause central nervous system depression and arrhythmias to persons acutely exposed. Longer-term exposure to benzene may cause anemia, alterations to the immune system, and leukemia. The effects of acute exposure to high concentrations of benzene (neurological, dermal, respiratory, gastrointestinal) can be evident immediately after exposure.

Route of Exposure:

Benzene is absorbed rapidly and extensively after inhalation and ingestion. It is absorbed less extensively through intact skin; however, percutaneous absorption may contribute to total body burden.

Protective Measures:

Utilize appropriate Level PPE as identified by the Environmental Protection Agency and Hazmat protocols.

Persons exposed only to benzene vapor do not pose substantial risks of secondary contamination to others. Persons whose clothing or skin is contaminated with liquid benzene can cause secondary contamination by direct contact or through off-gassing vapor.

Prophylaxis:

N/A

Treatment:

There is no specific antidote for benzene. Supportive care.

Reporting:

Any suspect cases should be reported immediately to the Division of Public Health, Epidemiology Branch: 1-888-295-5156 (24/7 coverage). For additional information, view the CDC website for Emergency Preparedness and Response at www.bt.cdc.gov.

24/7 Emergency Contact Number: 1-888-295-5156

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