
Information and recommendations for patients

- Patients exposed only to ethylbenzene vapor do not pose a significant risk of secondary contamination. Patients whose clothing or skin is contaminated with liquid ethylbenzene (boiling point 136°C, 277°F, respectively) can secondarily contaminate rescue and medical personnel by direct contact or evaporation of ethylbenzene.
- Ethylbenzene is irritating when it comes in contacts with the eyes, skin, and throat and causes headache, nausea, vertigo, dizziness, weakness, disorientation, and unconsciousness.
- There is no antidote to be administered to counteract the effects of ethylbenzene. Treatment consists of supportive measures.

Substance information

Ethylbenzene (C₆H₅-C₂H₅), CAS 100-41-4

Synonyms: phenylethane

Ethylbenzene is, at room temperature, a colorless to yellow liquid with a boiling point of 136°C, 277°F, respectively. Both vapor and liquid are potential fire and explosion hazards. Ethylbenzene has an aromatic odor at air concentrations of 2.3 ppm. It is slightly soluble in water, but miscible with alcohol and ether. Carbon monoxide may be released in a ethylbenzene fire.

Ethylbenzene is an organic solvent, used as an intermediate in the production of styrene, and in the plastics and rubber industries.

Ethylbenzene is usually present in complex mixtures such as gasoline.

What immediate health effects can result from exposure to ethylbenzene?

Most exposures to ethylbenzene occur by inhaling the vapor.

Exposure to small amounts usually irritates the eyes, skin, nose and throat and causes headache, nausea, vertigo, dizziness, weakness, disorientation, and unconsciousness. Damage to liver and kidney may occur after chronic exposure.

Are any future health effects likely to occur?

A single small inhalation exposure from which a person recovers quickly is not likely to cause delayed or long-term effects. Some people who have had serious inhalation exposures may develop airways effects.

Follow-up instructions

Keep this page and take it with you to your next appointment. Follow only the instructions checked below.

- () Call your doctor or the Emergency Department if you develop any unusual signs or symptoms within the next 24 hours, especially:
 - coughing, wheezing, difficulty breathing or shortness of breath
 - chest pain or tightness
 - increased pain or a discharge from exposed skin or eyes
 - headache, nausea, dizziness
- () No follow-up appointment is necessary unless you develop any of the symptoms listed above.
- () Call for an appointment with Dr. _____ in the practice of _____
When you call for your appointment, please say that you were treated in the Emergency Department at _____ Hospital by _____ and were advised to be seen again in _____ days.
- () Return to the Emergency Department/_____ Clinic on (date) _____ at _____ am/pm for a follow-up examination.
- () Do not perform vigorous physical activities for 1 to 2 days.
- () You may resume everyday activities including driving and operating machinery.
- () Do not return to work for _____ days.
- () You may return to work on a limited basis. See instructions below.
- () Avoid exposure to cigarette smoke for 3 days; smoke may worsen the condition of your lungs.
- () Drinking of alcoholic beverages is forbidden for at least three days; alcohol worsen your clinical conditions.
- () Avoid taking the following medications: _____

- () You may continue taking the following medication(s) that your doctor(s) prescribed for you: _____

- () Other instructions: _____

Signature of patient _____ Date _____
Signature of physician _____ Date _____

References

Buttgereit, F., Dimmeler, S., Neugebauer, E., Burmester, G.R.: Wirkungsmechanismen der hochdosierten Glucocorticoidtherapie, Deutsche Medizinische Wochenschrift 1996; 121: 248-252.

Diller, W.F.: Anmerkungen zum Unglück in Bhopal, Deutsche Medizinische Wochenschrift 1985; 110: 1749-1751.

IPCS (International Programme on Chemical Safety): International Chemical Safety Card # 0268, Ethylbenzene, 1994

ACGIH (American Conference of Governmental Industrial Hygienists): Documentation of the Threshold Limit Values: Ethyl benzene, 2002

ACGIH (American Conference of Governmental Industrial Hygienists.): Documentation of the Biological Exposure Indices: Ethyl benzene, 2007

RTECS (Registry of Toxic Effects of Chemical Substances.): RTECS # DA700000, Ethyl benzene, 2009

Haz-Map (Occupational Exposure to Hazardous Agents), Specialized Information Service, U.S. National Library of Medicine: Ethyl benzene, 2010

HSDB (Hazardous Substances Data Bank), U.S. National Library of Medicine: HSDB # 84, Ethylbenzene, 2010

IARC (International Agency for Research on Cancer): Monographs on the Evaluation of Carcinogenic Risks to Humans Vol. 77, 2000

ATSDR (Agency for Toxic Substances and Disease Registry): ToxGuide for Ethylbenzene, 2007

IDLH (Immediately Dangerous to Life or Health): National Institute for Occupational Safety and Health, Documentation Ethyl benzene, 1996

MEDITEXT – Medical Management: Ethyl benzene, 2011

Foncerrada G et al, Safety of Nebulized Epinephrine in Smoke Inhalation Injury, J Burn Care Res 2017;38:396–402

Walker PGF et al, Diagnosis and management of inhalation injury: an updated review, Critical Care (2015) 19:351