

Benzene C₆H₆

1. General characterization

Very slightly aromatic compound, volatile and soluble in water.

90% of benzene in ambient air comes from traffic. The remaining 10% comes from evaporation of fuel from storage and distribution.

2. Air pollutant effects on human health

- exposure by inhalation, cutaneous or eyes contact can cause the irritation of superior respiratory passageways, dermatitis or eyes irritation;
- inhaled in the lung it can cause pulmonary edema and hemorrhage;
- acute exposure following to the ingestion or excessive inhalation depresses the central nervous system (headaches, dizziness, nausea, convulsions, coma, possibly death);
- carcinogenic (according to the International Agency for Cancer Research).

3. Air pollutant effects on ecosystems

- long term contaminant of ground-water;
- not a significant contaminant of surface waters because it rapidly evaporates in the atmosphere;
- it is adsorbed to a large extent on the soil;
- it is classified as a dangerous atmospheric pollutant.

4. **Limit value** according to Law no. 104 from 15/06/2011 on ambient air quality (Romania), Clean Air Law and Ordinance no.12 from 15/07/2010 (Bulgaria).

Benzene C ₆ H ₆
5 µg/m ³ - annual limit value for the protection of human health