



Benzene

Formula: C₆H₆

CAS: 71-43-2

Industries: Oil & Gas, Manufacturing, Laboratory & Government

Detection Method: Tiger Select, Cub^{TAC}, Falco^{TAC} & Titan

Benzene is an important organic chemical compound with the chemical formula C₆H₆. It is also a natural constituent of crude oil and is one of the elementary petrochemicals. Due to the cyclic continuous pi bond between the carbon atoms, benzene is classed as an aromatic hydrocarbon, the second [n]-annulene ([6]-annulene). It is sometimes abbreviated Ph-H. Benzene is a colourless and highly flammable liquid with a sweet smell.

C₆H₆ - KNOWN TO CAUSE LEUKAEMIA AND IMPACTS RED AND WHITE BLOOD CELLS.

Exposure Health Hazards

The effects on worker's health depends upon how much benzene they are exposed to and for how long and as with other organic solvents, the immediate effects of a single exposure to a high concentration (hundreds of ppm) e.g. from a fugitive process leak, include headache, tiredness, nausea, dizziness and even unconsciousness if the exposure is very high (thousands of ppm) meaning an acute safety incident.

Prolonged exposure to high concentrations of benzene causes leukaemia and impacts red and white blood cells. Regular exposure can lead to chronic effects including:-

- myeloid leukaemia
- lymphocytic leukaemia
- non-Hodgkins lymphoma
- multiple myeloma
- aplastic anaemia

Where can benzene be found?

Benzene is a widely used industrial chemical and can be found in crude oil which contributes to a major part of gasoline. It's used to make plastics, resins, synthetic fibres, rubber lubricants, dyes, detergents, drugs and pesticides. Naturally it is produced by volcanoes and forest fires. Around your home it may be found in glues, adhesives, cleaning products, paint strippers, tobacco smoke and generally it enters the atmosphere from our use of petroleum products.

Detecting the release of benzene early

With a seemingly inexorable rise in the production and release of benzene into the environment it is vitally important that the health dangers and legislative provision are understood. The direction of travel for the exposure limit is decreasing and real-time monitoring using a range of PID solutions in combination will ensure that you go beyond compliance in the safety, health and wellbeing of your most valuable asset, your workforce.

Benzene Detection Instruments



Fixed Instruments



Portable Instruments



Personal Instruments

