

# What Is Benzene?

*Benzene is a naturally occurring compound .*



## Properties

- ◆ Colorless liquid
- ◆ Sweet odor
- ◆ Evaporates quickly
- ◆ Dissolves easily in water

*Benzene is a major industrial chemical made by separating it from the other natural components found in coal and oil.*

It is one of the top 20 chemicals ranked for highest volume produced annually in the United States.



*Benzene is used to make other chemicals and household products.*

- ◆ Gasoline
- ◆ Glues, adhesives, paint strippers, and some art supplies
- ◆ Household cleaning products
- ◆ Plastics, man-made rubber, and pesticides



# Benzene In The Environment

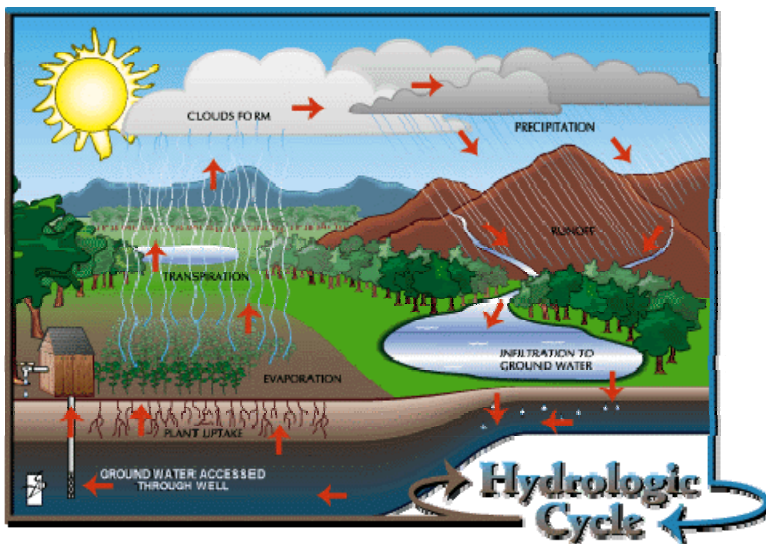
*Benzene is produced naturally by volcanoes and forest fires. It is also present in many plants and animals and in fossil fuels such as coal and oil.*



*Industrial processes are the main sources of benzene in the environment*

*What happens to benzene when it enters the environment?*

- ◆ Benzene evaporates very quickly into the air. It can pass into the air from water and soil.
- ◆ It reacts with other chemicals in the air and usually breaks down within a few days.
- ◆ Benzene in the air can attach to rain or snow and be carried back down to the ground.
- ◆ It breaks down more slowly in water and soil, and can pass through the soil into underground water.
- ◆ Benzene does not build up in plants or animals.



# Health Effects Of Benzene

## *How are People Exposed to Benzene?*

- ◆ Working in industries that manufacture or use benzene.
- ◆ Breathing emissions from burning coal and oil, motor vehicle exhaust, evaporation from gasoline service stations, and tobacco smoke.
- ◆ Consuming water that contains benzene, usually because of a spill or leak during the handling and storage of gasoline.



## *Short-term Health Effects*

- ◆ Skin, eye, and Respiratory tract irritation
- ◆ Headache, drowsiness and dizziness
- ◆ High exposures can result in unconsciousness and even death.

## *Long-term Health Effects*

- ◆ An increased cancer risk has been observed in humans exposed to benzene for long periods of time on the job.
- ◆ It primarily affects the blood in humans.
- ◆ It may affect the immune system.

