



## CHLOROBENZENE

### What is CHLOROBENZENE?

Chlorobenzene is a man-made colorless liquid that burns quickly. It has a pleasant smell like the smell of almonds. Some of it will dissolve in water. It also turns into a vapor and goes into the air. Chlorobenzene is not found in nature.

### Where can chlorobenzene be found and how is it used?

Over the past 40 years in the United States, less chlorobenzene is being manufactured. In the past, chlorobenzene was used to make phenol and DDT. Today, it is still used to produce pesticides and chemicals used to prevent or kill unwanted pests. Chlorobenzene may be also be used to grease car parts.

Chlorobenzene sent into the air is slowly broken down by other chemicals and sunlight. It can be removed from the air by rain. In water, chlorobenzene will quickly turn into a vapor, or be broken down by bacteria. When it enters soil, most of it is broken down quickly by bacteria and the rest will turn into a vapor or leach into groundwater.

### How can people be exposed to chlorobenzene?

*You could be exposed to chlorobenzene through:*

**Breathing** the chemical. People who work in places where chlorobenzene is processed or handled are at greatest risk. If you live near a waste site, you could be exposed to vapors in the air.

**Eating or drinking** food or water that has been in contact with chlorobenzene. If you live near a waste site, you could be exposed from water contaminated by chlorobenzene.

**Touching soil** contaminated with chlorobenzene. This happens to people who live near a waste site or a factory. This is uncommon.

**Eye Contact** by splashing chlorobenzene in the eyes. This could occur to someone who works at a factory that makes or uses chlorobenzene.

### How can chlorobenzene affect my health?

When chlorobenzene enters your body, most of it leaves from your lungs when you breathe. It also leaves the body through urine.

It is not known whether chlorobenzene causes cancer in people. In animal studies, it did not cause cancer in rats and mice. In male rats, pre-cancerous growths were found on the liver.

A study showed that workers exposed to high levels of chlorobenzene had various symptoms such as headaches, feeling numb or tired, upset stomach and vomiting. Since workers may have also been exposed to other chemicals at the same time, it is not known if chlorobenzene alone was the reason for these problems. Exposure to most solvents used in industry can cause mild to severe problems with the nervous system. A solvent is a substance used to dissolve other substances.

### How is chlorobenzene poisoning treated?

Doctors will treat the symptoms of chlorobenzene exposure. There is no specific antidote to fight the poisoning effects of chlorobenzene.



## What should I do if exposed to chlorobenzene?

**If chlorobenzene gets in your eyes**, flush your eyes with large amounts of water for at least 15 minutes. Lift your upper and lower lids from time to time.

**If you touch chlorobenzene**, quickly remove contaminated clothing and wash contaminated skin with large amounts of soap and water.

**If you breathe chlorobenzene**, move to an area with fresh air. Get medical attention right away. It may be necessary for someone to perform cardio-pulmonary resuscitation (CPR) or rescue breathing.

## What factors limit use or exposure to chlorobenzene?

Certain industrial or manufacturing work sites are the most common sites for chlorobenzene exposure. Workers should follow safe practices. Places where chlorobenzene can be released should be closed off to prevent accidental and dangerous releases. Employees should have a source of fresh air and wear protective masks and clothing in case of exposure. Employees should wash their clothes at the end of each shift, and especially following any exposure to chlorobenzene.

## Is there a medical test to show whether I was exposed to chlorobenzene?

Tests can show if chlorobenzene is in your urine, blood and body fat. Other tests on the liver, lungs and kidneys can show the impact of chlorobenzene exposure. A doctor may ask the patient questions to determine if the brain was affected. Some symptoms are memory problems, changing moods, headaches, trouble with concentration, or trouble sleeping.

## Technical information for chlorobenzene

CAS Number: 108-90-7

Chemical Formula: C<sub>6</sub>H<sub>5</sub>Cl

Carcinogenicity (EPA): Not classified.

MCL (Drinking Water): 0.1 parts per million (ppm)

OSHA Standards: 75 ppm (350 mg/m<sup>3</sup>)

NIOSH: none

ACGIH: 10 ppm (46 mg/m<sup>3</sup>)

## References and Sources

Agency for Toxic Substances and Disease Registry (ATSDR). 1990. *Toxicological profile for chlorobenzene*. Atlanta, GA: U.S. Department of Health and Human Services. <http://www.atsdr.cdc.gov/toxprofiles/tp131.html> (accessed 10/1/09)

West Virginia Department of Environmental Protection, <http://gis.wvdep.org/tri/cheminfo/csfs38.txt> (accessed 10/1/09)

New Jersey Department of Health and Senior Services, Hazardous Substance Fact Sheet – Chlorobenzene, <http://www.state.nj.us/health/eoh> (accessed 10/1/09)

Pesticide Action Network – North America – [http://www.pesticideinfo.org/Detail\\_Chemical.jsp?Rec\\_Id=PC33643](http://www.pesticideinfo.org/Detail_Chemical.jsp?Rec_Id=PC33643) (accessed 10/1/09)

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

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