



## TOXAPHENE

### What is TOXAPHENE?

Toxaphene is a solid or gas that smells strongly like turpentine. Toxaphene is a yellow to amber waxy solid in its original form. It vaporizes easily as a heated solid form or when mixed with liquids, but toxaphene does not burn. Toxaphene contains more than 670 chemicals. It is also known as camphechlor, chlorocamphene, polychlorocamphene and chlorinated camphene.

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

Until 1982, toxaphene was one of the most widely used insecticides in the United States. It was mostly used in southern states on cotton and other crops. It was also used to control livestock pests and to kill unwanted fish in lakes. In 1990, the United States banned all uses but not its manufacture. Today, toxaphene is prohibited on any imported food.

### How can people be exposed to toxaphene?

Due to its historical use, exposure to toxaphene is still possible. Companies in the United States can manufacture toxaphene to be exported, even though it is not allowed for use in the United States. It is not known if toxaphene is still being made in the United States. It is also not known if exposure is likely when it is made.

*You could be exposed to toxaphene through:*

**Breathing** toxaphene vapors in air near a hazardous waste site containing toxaphene.

**Drinking** water from wells containing toxaphene.

**Eating** soil that contacted toxaphene. Infants or toddlers can be exposed this way. Exposure from eating can also occur from eating fish caught in, and shellfish harvested from, water containing toxaphene.

**Touching** soil that contacted toxaphene.

### How does toxaphene work and how can it affect my health?

Toxaphene enters the body by breathing, eating, drinking or touching it. When toxaphene enters the body, it rapidly spreads to all organs and interferes with cell communication. Toxaphene breaks down quickly and is excreted through urine and waste matter. Most of the toxaphene leaves the body within 24 to 36 hours. However, animal studies show that low levels may remain in fat for months.

If you are repeatedly exposed to toxaphene, it can build up in the body and its harmful effects could last longer. Toxaphene exposure can be deadly. Breathing, eating, or drinking high levels of toxaphene damages the lungs, nervous system and kidneys. Toxaphene interferes with nerve impulses, especially in the brain, which affects the central nervous system. Most people in the United States will not be exposed to high levels since it is no longer used in this country.

Animals exposed to low levels of toxaphene in food or drinking water experienced effects on the liver, kidneys, adrenal glands and immune system. It is not known whether toxaphene can affect reproduction or cause birth defects in people.

Medical researchers suspect that toxaphene may cause cancer in humans, although they do not know definitely. In an animal study, toxaphene caused cancer of the thyroid gland after the animals were exposed to high levels throughout their lifetimes.

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

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## How is toxaphene poisoning treated?

There is no treatment for toxaphene poisoning. The doctor will treat the symptoms and recommend treatment depending on the level of exposure and how the exposure occurred.

## What should I do if exposed to toxaphene?

**If toxaphene gets on your skin**, quickly remove clothing. Wash skin right away with large amounts of soap and water.

**If you drink or eat anything that contains toxaphene**, go to a doctor.

**If you breathe toxaphene**, move away from the area of exposure. Go to a medical facility. If needed, give rescue breathing and mouth-to-mouth resuscitation.

## What factors limit use or exposure to toxaphene?

Toxaphene is no longer used in the United States so exposure is most likely to come from polluted soil, water or food. Limit exposure by avoiding game, fish and farmed fish that may have been in contact with toxaphene.

## Is there a medical test to show whether I've been exposed to toxaphene?

Urine and blood tests can show toxaphene and its breakdown products in blood, urine, breast milk, and body tissues. These tests cannot show the level of toxaphene exposure, nor can they determine future health effects.

## Technical information for toxaphene

CAS Number: 8001-35-2

Chemical Formula:  $C_{10}H_{10}Cl_8$

Carcinogenicity (EPA): Group 2B - probable human carcinogen.

MCL (Drinking Water): 0.003 milligrams per liter (3 ppb)

OSHA Standards (PEL): 0.5 milligrams per cubic meter of air

NIOSH Standards: NIOSH recommends that toxaphene levels should be as low as possible in the workplace due to its potential carcinogenicity.

## References and Sources

Agency for Toxic Substances and Disease Registry (ATSDR). 1996. *Toxicological profile for Toxaphene*. Atlanta, GA: U.S. Department of Health and Human Services.