



Arsenic (and its compounds)

What is arsenic?

Arsenic is an element that occurs naturally in minerals and ores in the earth's crust. It may be found in air, water, soil, and food.

Arsenic compounds come in two forms: organic, (the form usually found in food and not as hazardous to people and animals); and inorganic, which can harm human health at high enough levels.

How are people exposed to arsenic?

You can be exposed to inorganic arsenic by touching a source, such as treated wood, inhaling it from the air, or ingesting it in food or drinking water. Settlements in past legal cases have alleged arsenic was present in diet supplements, certain water filtration systems, and some asphalt products.

Touching a source of arsenic generally is not harmful by itself, but kids who suck their thumbs or put their hands in their mouths may ingest arsenic they have touched.

Most of the arsenic in drinking water comes from natural processes, such as erosion or rainfall. Arsenic also may enter the water supply as a result of human activities such as urban runoff, past mining, or abandoned industrial or farm waste. The California Department of Public Health requires public water providers to report the amount of arsenic and other contaminants in drinking water.

Fast Facts About Arsenic...

Cancer	1987: Added to the original Proposition 65 list after the International Agency for Research on Cancer found it caused cancer of the lungs and bladder and a smaller increased risk of cancer of the skin, liver, and kidneys. Confirmed by updated, international data in humans.
Developmental Effects	1997: A state panel of scientific experts found that arsenic causes developmental defects in laboratory animals.
Other known health effects identified by OEHHHA scientists	High arsenic exposure may lead to severe vomiting, abdominal cramps, diarrhea, dehydration, shock, cardiac failure, and other health effects.
<p>What is Proposition 65? OEHHHA has provided some helpful information that explains how chemicals and substances end up on the list and how listing affects consumers and companies.</p> <ul style="list-style-type: none"> • Click here for a "plain language" overview of Proposition 65 • Click here to skim "Frequently Asked Questions" about Proposition 65. 	

How can I protect myself from arsenic?

Those who work around metal, mine tailings, fertilizers, certain pesticides and other industrial sources of arsenic could breathe in airborne arsenic. If exposed at work, follow workplace guidance to determine whether special equipment or protective clothing, such as respirators and gloves, is required.

Some wood treatments contain arsenic in the form of “chromated copper arsenate.” In 2003, manufacturers stopped using this type of wood treatment in most residential areas, including decks and play sets. However, children who frequently play on playground structures that received this type of wood treatment could get arsenic on their hands. Kids and their parents should wash their hands after playing on these structures. Never burn wood treated with chromated copper arsenate.

What are the health effects of arsenic exposure?

Studies done outside of the U.S. have shown that people exposed to unusually high amounts of inorganic arsenic in drinking water over long periods of time had an increased risk of cancer, including lung, bladder, liver, kidney, prostate and skin cancers. Cardiovascular effects were found in some human studies and developmental defects were reported in experimental animal studies.

See http://oehha.ca.gov/public_info/facts/pdf/Arsenicfinalphgfacts.pdf for an OEHHA fact sheet about the health effects of arsenic in drinking water.

What does it mean that arsenic is on California’s Proposition 65 list?

Arsenic appears on the Proposition 65 list because it is known to cause cancer and developmental toxicity.

This means that businesses must provide you with a warning if you buy products that could expose you to significant amounts of arsenic or other listed chemicals. Generally, Californians who visit or live near a business whose operations could expose them to potentially harmful amounts of a listed chemical such as arsenic must be warned about potential exposure. Finally, significant amounts of arsenic cannot be discharged into drinking water sources. Businesses that do not provide required warning may face enforcement actions by state or local prosecutors or private enforcers.

While Proposition 65 does not require government agencies that supply drinking water to provide warnings, your water provider must disclose the presence of detectable arsenic and other contaminants via annual Consumer Confidence Reports that are sent to customers. Your water provider may also post this report on its website.