



Methanol

What is methanol?

Methanol is a clear and colorless liquid alcohol sometimes called “wood alcohol.” Methanol is not the kind of alcohol that people drink. Methanol’s main use is in the production of chemicals. For example, 30 percent of methanol in commerce is used to produce formaldehyde.

What products contain methanol?

Methanol occurs naturally at low levels in fruits, vegetables, juices and other foods prepared from fruits and vegetables. It also can be present in some adhesives, paints, varnishes and other consumer products. Cigarette smoke also contains methanol.

Methanol is used as a fuel in race cars and may have some use in alternative fuels for transportation.

What are the health effects of methanol exposure?

Scientists at the National Toxicology Program recently determined that methanol causes birth defects in animals. Based on this finding, methanol was added to the Proposition 65 list of chemicals that cause developmental toxicity.

Methanol can be toxic in other ways. Methanol poisoning happens when people are exposed to more methanol than their bodies can handle. You should never drink pure methanol. Drinking a few teaspoons of undiluted methanol can lead to blindness and can even be fatal. Less-severe symptoms of high methanol exposure include headaches, blurred vision, and muscle pain.

What does it mean that methanol appears on California’s Proposition 65 list?

California added methanol to the list of chemicals known to cause reproductive toxicity in 2012 after federal scientists at the National Toxicology Program found that the chemical caused birth

Fast Facts About Methanol ...	
Developmental toxicity	2012: Methanol was added to the Proposition 65 list because the National Toxicology Program found that animal studies showed birth defects at high doses.
Other known health effects	Methanol poisoning can cause headaches and muscle pain, and at high enough doses, blindness or death.
What is Proposition 65?	
Proposition 65 is a law passed by California voters in 1986. It requires the Governor to maintain a list of carcinogens and reproductive toxicants.	

defects in laboratory animals. As of March 2013, businesses with more than 10 employees must provide a warning if their operations or products cause sufficiently high exposures to methanol. Additionally, as of November 2013, methanol may not be discharged in significant levels into a source of drinking water. Businesses that fail to comply with these requirements could face civil lawsuits brought by state or local prosecutors or members of the public.

OEHHA has proposed two “maximum allowable dose levels” that identify levels of exposure to methanol that require warnings and prohibit discharges to sources of drinking water. The proposed levels are 47,000 micrograms per day for inhalation, 23,000 micrograms for ingestion of methanol. More information on the proposal may be obtained at: http://oehha.ca.gov/prop65/law/pdf_zip/MethanolMADLpkg.pdf

Fruits and vegetables that naturally contain methanol do not require Proposition 65 warnings. Similarly, warnings are not required for juices and other products prepared from fruits and vegetables with naturally occurring methanol. For a more detailed explanation, see: http://www.oehha.ca.gov/prop65/ig/pdf/IG_12001Methanol.pdf.

How are most people exposed to methanol?

Generally, people may be exposed to low amounts of methanol by touching or breathing it in from certain consumer items. Items that may contain methanol include varnishes, shellacs, paints, windshield washer fluid, antifreeze, tobacco smoke and adhesives. Improperly produced home-made distilled spirits may contain dangerously high levels of methanol.

People can be exposed to methanol in workplaces where methanol is manufactured or used. People who work with methanol are exposed to higher levels than the average person.

How can I reduce my exposure to methanol?

Wear appropriate protective gear when using paints, adhesives, and varnishes. Washing your hands after using these items also reduces exposure. If you work with methanol, follow the protection requirements in your workplace.

Cutting back or quitting smoking will significantly decrease your exposure to methanol and many other toxic substances.

Where can I find out more about methanol and the risk of reproductive toxicity?

To learn more about the basis for the National Toxicology Program’s findings that methanol caused birth defects in laboratory animals, please see: http://ntp.niehs.nih.gov/ntp/ohat/methanol/Methanol_Monograph.pdf