



Irrigated Lands Program 1,2,3-TRICHLOROPROPANE (1,2,3-TCP) HEALTH INFORMATION

1,2,3- TCP is a man-made chemical compound that easily moves with the flow of groundwater. It has been detected throughout California in some public water systems, monitoring wells, and private domestic wells. 1,2,3-TCP has been used as a cleaning and degreasing solvent, and is sometimes detected at industrial or hazardous waste sites. In agricultural areas, 1,2,3-TCP is associated with the application of soil fumigants (i.e., pesticides) which contained 1,2,3-TCP as an impurity. The use of soil fumigants containing 1,2,3-TCP in agricultural areas most commonly occurred from the 1950s until the 1990s. In locations where 1,2,3-TCP has moved into groundwater, it remains in groundwater for a long time.

The California safe drinking water standard, also known as the Maximum Contaminant Level (or "MCL"), for 1,2,3-TCP is 0.005 micrograms per liter ($\mu\text{g/L}$), or 5 parts per trillion (a very low concentration).

Health considerations: Exposure can occur by drinking or cooking with water containing 1,2,3-TCP, or by breathing in 1,2,3-TCP in vapor form as it evaporates from tap water during showering and other household water uses. Some people who drink water containing 1,2,3-TCP at levels greater than the MCL over many years may have an increased risk of getting cancer. For more information on health risks associated with 1,2,3-TCP, consultation with a healthcare provider and/or the environmental health department in your county is advised.

Tips for reducing exposure:

- Use an alternative source of water for drinking, cooking, making ice, brushing teeth, showering/bathing, and hand-washing dishes.
- Install and maintain a water treatment system capable of reducing 1,2,3-TCP levels below the MCL. Treatment systems are available that can treat all water used at all taps in a building. Treatment systems that treat water only at individual taps are not advised for treatment of 1,2,3-TCP. Consultation with a water treatment professional is advised. Treatment systems approved by the state of California can be found here: https://www.waterboards.ca.gov/drinking_water/certlic/device/watertreatmentdevices.html (refer to Registered Water Treatment Devices as of January 2019 for volatile organic compounds, or VOCs because 1,2,3-TCP is classified as a VOC).

References

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