

c-1,3-DICHLOROPROPENE (C₃H₄Cl₂)

Chemical Abstracts Service (CAS) Number: 10061-01-5

General Information

c-1,3-Dichloropropene is a colorless liquid with a sweet chloroform-like odor. Acute (short-term) inhalation exposure to c-1,3-dichloropropene in humans has caused mucous membrane irritation, chest pain, and breathing difficulties. Information on the cancer risk from exposure to c-1,3-dichloropropene in humans is limited. U.S. EPA has classified c-1,3-dichloropropene as a Group B2, probable human carcinogen.

Sources

- Exposure to c-1,3-dichloropropene occurs mainly in farms where it is used to treat crops or in factories where it is made.
- The primary way you can be exposed to c-1,3-dichloropropene is by breathing air containing it.
- You can also be exposed by drinking contaminated water or touching contaminated soil where it is produced or used, or near hazardous waste sites that contain it.

Indiana Emissions

c-1,3-Dichloropropene emissions totals are not available from the National Emission Inventory (NEI) for the 2014 calendar year.

Measured Concentration Trends

Ambient air monitoring data most accurately represents a limited area near the monitor location. All monitors for air toxics sample every sixth day. The monitoring locations by themselves are not sufficient to accurately characterize air toxic concentrations throughout the entire state, however, results from the monitors will provide exposure concentrations with a great deal of confidence at the monitoring locations.

The ambient air monitoring results were analyzed using U.S. EPA recommended statistical methods. IDEM evaluated the data so that a 95% upper confidence limit of the mean (UCL) could be determined. A 95% UCL represents a value which one can be 95% confident that the true mean of the population is below that value.

To learn more about the current monitoring locations, please visit IDEM's Air Toxics Monitor Siting webpage at: <http://www.in.gov/idem/toxic/2337.htm>

Data analysis was performed for each monitor that operated for a significant portion of the analysis period. This analysis determined the detection rate, which is defined as the percentage of valid samples taken statewide that had a quantifiable concentration of the pollutant. The statewide detection rate of c-1,3-dichloropropene for the monitors analyzed from 2006-2015 was

1.2%. This detection rate is too low for IDEM to draw any conclusions about concentration trends of c-1,3-dichloropropene. IDEM did not perform a trend analysis for any pollutant with a detection rate less than 50%.