



# History of Lead Air Quality Standard

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## ***What is lead?***

Lead is a relatively soft and chemically resistant metal. Lead forms compounds with both organic and inorganic substances. As an air pollutant, lead is present in small particles. Sources of lead emissions in California include a variety of industrial activities. Because it was emitted in large amounts from vehicles when leaded gasoline was used, lead is present in many soils (especially urban soils) and can get resuspended into the air.

## ***Health and Welfare Effects from Exposure to Ambient Levels of Lead***

Because lead is only slowly excreted, exposures to small amounts of lead from a variety of sources can accumulate to harmful levels. Effects from inhalation of lead near the level of the ambient air quality standard include impaired blood formation and nerve conduction. Lead can adversely affect the nervous, reproductive, digestive, immune, and blood-forming systems. Symptoms can include fatigue, anxiety, short-term memory loss, depression, weakness in the extremities, and learning disabilities in children. Lead also causes cancer.

## ***History of Lead Air Quality Standard***

- In 1970, the ARB set a standard for lead at  $1.5 \mu\text{g}/\text{m}^3$  for a 30-day average.
- In 1976, the ARB reviewed and retained this standard.
- In 1993, the ARB identified lead compounds (including inorganic lead) as toxic air contaminants, due to cancer effects.
- In 1996, the ARB established a cancer potency value of  $1.2 \times 10^{-5}$  per  $\mu\text{g}/\text{m}^3$  for inorganic lead exposure.  
This value also applies to lead acetate, lead phosphate and lead subacetate.

## ***Ongoing Regulatory Activities***

Based on the identification of lead as a toxic air contaminant, the ARB staff is involved in risk management activities for lead. [For more information on Lead Risk Management Activities, please click here.](#)

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## Ambient Air Quality Standards