Lead (Pb)

What is Lead?

Lead is a metal found naturally in the earth's crust. It can be found in all parts of our environment, including air, water, and soil. Lead can combine with other chemicals to make different compounds.
Lead is a soft gray metal that was used in water supply piping systems. Lead was used in solder that connects copper pipes together and in household plumbing and water service lines that connect houses to the public water mains in the streets. Use of lead piping and solder for water supply was banned in New Jersey in 1987.

Does Lead have any additional names?

No.

What are the known health effects?

Lead can affect almost every organ and system in your body. The nervous system is the main target for lead poisoning in children and adults. Long-term exposure can result in decreased learning, memory, and attention, and weakness in fingers, wrists, or ankles. Lead exposure can cause anemia (low iron in the blood) and damage to the kidneys. It can also cause increases in blood pressure, particularly in middle-aged and older individuals. Exposure to high lead levels can severely damage the brain and kidneys and can cause death.

How does exposure occur?

The primary source of exposure is lead based paints and chipping thereof. Lead can also leach into drinking water if lead piping or lead solder was used in home plumbing; this can be a concern during water consumption, not other uses such as bathing. Mount Laurel MUA does not have any lead piping and lead is not contained in the supplied water within our distribution system; in addition, there are no known lead water services installed. However, most homes in Mount Laurel have copper plumbing and prior to 1987, solder containing lead was likely used. The water supplied to customers of MLTMUA is not acidic or corrosive, but low levels of lead have been detected in some premises.

Is this contaminant regulated?

Yes, and water supplied to Mount Laurel MUA customers is in compliance with USEPA and NJDEP requirements. No more than 10% of sample results for lead at the customer's tap are permitted to be greater than 15ppb before additional action is required. Mount Laurel MUA is in compliance as more than 99% of our sample results were less than the action level of 15 ppb.

How can I reduce exposure?

If the water in your pipes has been sitting for several hours, run the faucet for 30 seconds, until the water runs cold to flush the water out of the plumbing prior to consumption. This will reduce the level of lead dramatically; in most cases this flushing will completely remove all lead. Reverse osmosis, fine filtration + adsorption, and distillation are ways to remove lead from drinking water at home.

Additional information regarding lead, including the information referenced, can be found at:
https://www.who.int/water_sanitation_health/dwq/chemicals/lead.pdf
https://www.atsdr.cdc.gov/csem/lead/docs/CSEM-Lead_toxicity_508.pdf