

Copper (Cu)

What is Copper?

Copper is a metal that occurs naturally throughout the environment, in rocks, soil, water, and air. It is an essential element in plant and animals (including humans), which means it is necessary for us to live. Therefore, plants and animals must absorb some copper from eating, drinking, and breathing. Copper is used to make wire, plumbing pipes, and sheet metal. Copper compounds are commonly used in agriculture to treat plant diseases like mildew, for water treatment and, as preservatives for wood, leather, and fabrics.

Does Copper have any additional names?

No.

What are the known health effects?

Everyone must absorb small amounts of copper every day because copper is essential for good health. Ingesting high levels of copper can cause nausea, vomiting, and diarrhea. Very high doses of copper can cause damage to your liver and kidneys, and even cause death.

How does exposure occur?

You may be exposed to copper from breathing air, drinking water, eating foods, or having skin contact with copper, particulates attached to copper, or copper-containing compounds. The most likely place to be exposed to copper is through consuming drinking water, especially if your water is corrosive and you have copper pipes in your house. The water supplied to customers of MLTMUA is not acidic or corrosive.

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 copper at the customer's tap are permitted to be greater than 1.3 ppm before additional action is required. Mount Laurel MUA is in compliance as 100% of our sample results were less than the action level of 1.3 ppm.

How can I reduce exposure?

The best way to lower the level of copper in your drinking water is to let the water run for at least 15 seconds first thing in the morning (or at any time when the water has been sitting in plumbing unused for 6 hours or more) before drinking or using it in cooking. This reduces the levels of copper in tap water dramatically. Copper can also be removed from drinking water with reverse osmosis, distillation, and cation exchange.

Additional information regarding Copper, including the information referenced, can be found at:

<https://www.wqa.org/Portals/0/Technical/Technical%20Fact%20Sheets/Copper.pdf>

<https://www.atsdr.cdc.gov/toxfaqs/tfacts132.pdf>