

MDHHS Copper Action Level Exceedence Recommendations for Infants – Copper Harbor, MI

The Copper Harbor Water Supply has an Action Level Exceedance for copper. The source water does not contain elevated copper; however higher levels of dissolved oxygen in the water is leading to corrosion of copper from plumbing fixtures inside residential homes.

Copper is found naturally in the environment. Humans need a small amount of copper in their diet but too much copper, especially for infants, can be harmful. Drinking water with high amounts of copper can cause upset stomach, vomiting, diarrhea, and stomach cramps.

The Michigan Department of Health and Human Services (MDHHS) recommends homes with a formula fed infant less than 12 months of age who families are on the Copper Harbor Water Supply, use cold-flushed water for making formula and drinking water for infants. Powdered infant formula already has the needed amount of copper. Higher levels of copper from drinking water may cause upset stomach or other health issues.

Flushing cold water should continue until the water supply indicates copper is no longer a concern. Do not use hot water for drinking or cooking food for an infant less than 12 months of age. A resident with an infant may choose to use a water filter to reduce copper or bottled water for formula fed infants. A filter can be requested from the Western Upper Peninsula Health Department through the child's physician. Filters used to reduce the level of copper in drinking water should be certified NSF/ANSI Standard 53 for copper reduction.

Adults with disorders of copper metabolism (such as Wilson's disease) should continue to avoid potential sources of copper, such as drinking water that contains copper, according to their clinician's recommendation. Residents are also recommended to clean the faucet aerators (screens at end of faucet) to remove any particles. For more information, you can contact MDHHS at 844-934-1315 or EGLE at 800-662-9278.

Elevated Copper Level Update – Copper Harbor Water Department

Copper Harbor Water Department has been conducting sampling per the State of Michigan's Lead and Copper Rule (LCR). Ten locations within the distribution system have been selected based on the Department of Environment, Great Lakes and Energy's tier system for site selection. We have been and will continue to sample these locations to collect data.

Previous water sampling results demonstrated our source water does NOT contain elevated copper levels, but does contain higher levels of dissolved oxygen. The elevated dissolved oxygen contributes to the corrosion of home interior plumbing and fixtures, resulting in the observed copper level results.

Copper Harbor's distribution system samples have consistently tested above the action level of 1300 parts per billion ($\mu\text{g/L}$), with an average result of 1900 parts per billion ($\mu\text{g/L}$). The data collected during our studies has prompted the State of Michigan to mandate a corrosion control program. The State of Michigan's recommended course of action is to treat our raw water with an Ortho-Polyphosphate blend. The Orthophosphate would be used as a corrosion inhibitor while the Polyphosphate would be used as a sequestering agent.

To help with this project, we have retained the services of OHM Engineering. They are currently working with the State of Michigan to submit and process a "construction permit" to implement corrosion control. Attached are copies of informational material pertaining to elevated copper levels in drinking water suggested by the Department of Health and Human Services. If you have any questions you can use any of the resources listed in the distributed material or by contacting the Copper Harbor Water Department for information or water testing at 906-289-4511.