

Statement of the Phosphate Forum of the Americas on Phosphates and Municipal Water Treatment Facilities

Phosphates are used in many different applications, including foods and beverages, pharmaceuticals and personal care products, and municipal water facility treatment. Municipal water treatment facilities add inorganic phosphates to water at very low levels to prevent corrosion of metal plumbing lines and the potential leaching of metal elements such as copper and lead into the drinking water. Most phosphates that are added in municipal water facilities help coat metal plumbing lines or are flushed through the water system, meaning only small amounts of phosphates are consumed through drinking water. Phosphates also provide other important benefits in the treatment of potable water, like corrosion control and scale inhibition.

The presence of lead and copper in the water supply can cause harmful public health effects, including impaired physical and mental development, brain and kidney damage, injury to red blood cells, abdominal pain, and nausea. The addition of phosphates to municipal water supplies greatly reduces the amounts of lead and copper that are introduced into water and consumed by the public.

The safety of phosphates in food and water has been well-established. The U.S. Food and Drug Administration (FDA) considers inorganic phosphates to be “generally recognized as safe” (GRAS) in various foods. Additionally, the National Sanitation Foundation (NSF International) provides certification of phosphate products used to treat drinking water to NSF/ANSI 60: Drinking Water Treatment Chemicals – Health Effects. This standard was established to ensure treatment chemicals and any associated contaminants will not cause adverse health effects when dosed at the products certified maximum use level into drinking water. Certification of treatment chemicals to NSF/ANSI 60 is required in most US states.

As the leaching of heavy metals into water can cause adverse health effects, such as brain and kidney damage, it is important to add inorganic phosphates to municipal water supplies to reduce the potential consumption of these metals. For more information about phosphate uses, please visit phosphatefacts.org.

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