

# Orthophosphate ( $O_4P^{-3}$ )

## **What is Orthophosphate?**

Orthophosphate is a common corrosion inhibitor used by water suppliers to prevent lead pipes from leaching. When orthophosphate is added to a water source, it reacts with lead to create a mineral-like crust inside of the lead pipe. This crust acts as a coating which prevents further lead corrosion.

## **Does Orthophosphate have any additional names?**

Phosphate; Reactive Phosphorus

## **What are the known health effects?**

The USEPA recognizes orthophosphate as an effective additive in water in reducing lead levels. It is also recognized as safe by the US Food and Drug Administration.

## **How does exposure occur?**

Orthophosphate is added to the water system as a corrosion inhibitor. The orthophosphate creates coating on the piping to reduce leaching of metals into the water by corrosion.

## **Is this contaminant regulated?**

No, although there is no MCL for orthophosphate, we are required to monitor and report the results. Water supplied by MLTMUA has not reported any detections of Orthophosphate.

## **How can I reduce exposure?**

Orthophosphate in drinking water can be removed by point of use granulated activated carbon filtration.

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

[https://mwua.org/wp-content/uploads/2017/08/Lead-Copper-Control-with-Phosphates\\_20170413.pdf](https://mwua.org/wp-content/uploads/2017/08/Lead-Copper-Control-with-Phosphates_20170413.pdf)