What Is Orthophosphate?

Orthophosphate is a food-grade additive that we add to our water-treatment process to help reduce lead levels in water. When water with orthophosphate runs through the system, it creates a coating on the inside of lead service lines, creating a barrier between the lead pipes and the water. This is considered corrosion control.

Is Orthophosphate Safe in My Drinking Water?

Orthophosphate is considered safe by the U.S. Food and Drug Administration. Also, the Environmental Protection Agency (EPA) and the New Jersey Department of Environmental Protection (DEP) recognize orthophosphate as an effective water-treatment additive in reducing lead levels.

Why Is Orthophosphate Important for the TWW Water System?

According to our analysis of TWW's water-distribution system, there are 36,700 lead and galvanized steel water-service lines in our system and at private homes in our five-municipality service area. This number does not include Hopewell Township because the vast majority of its housing stock in our service area was built after lead was banned for use in plumbing fixtures. Although TWW has launched a $15 million project to replace thousands of water-service lines in our system, it will take many years. In the short-term, a proven method of protecting residents from lead is by introducing orthophosphate into TWW's water-treatment process to prevent lead from leaching into the water from lead and galvanized steel water-service lines and household plumbing fixtures.

How Does Orthophosphate Work?

Orthophosphate forms a protective coating inside lead and galvanized steel water-service lines and household plumbing fixtures to prevent lead particles from leaching into the drinking water.

Any Questions? Call (609) 989-3055
When Will TWW Begin Using Orthophosphate?

TWW will add orthophosphate to its water-treatment process in phases, beginning with the launch of Phase 1 to TWW’s high service area on Tuesday, December 3. TWW’s high service area is comprised of parts of the City of Trenton, Hamilton Township, Ewing Township, and Lawrence Township. While Hopewell Township will not be a direct focus of TWW’s orthophosphate work due to its newer infrastructure, the additive will enter its water supply during this system-wide initiative. TWW’s gravity area, comprised of parts of the City of Trenton, will receive orthophosphate as part of Phase 2, once TWW completes water-distribution system and water-treatment system improvements.

When Will the Orthophosphate Begin Working?

TWW’s engineering assessment of the water-distribution system indicates that orthophosphate will reach its maximum effectiveness in 10-12 months.

About Trenton Water Works

Trenton Water Works is among the largest publicly owned, urban water utilities in the United States. It supplies an average of 27 million gallons of Delaware River-sourced drinking water per day to 63,000 metered customers. It services more than 200,000 people in Trenton, parts of Hamilton Township, Ewing Township, Lawrence Township and Hopewell Township in Mercer County, New Jersey. Established more than 200 years ago, TWW operates a 60-million-gallon water-filtration plant and water-distribution system that includes a 100-million-gallon reservoir. TWW’s system has 683 miles of water mains varying in size from 4 to 48 inches in diameter, three pump stations, and six interconnections between TWW and other water suppliers.