

PHOSPHATE FACTS
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What are phosphates?

Phosphates are Food and Drug Administration (FDA) approved and safely used everyday as an additive in many of your favorite foods and drinks.

What types of foods / beverages contain phosphates?

Phosphates are safely used in a variety of foods and drinks, including: cheese; cakes; cookies; breads; crackers; powdered foods; cured meat; breakfast cereals; dehydrated potatoes; butter; chocolates; and soft drinks. Only a small fraction of the phosphates in the American diet comes from additives. Most comes from meat and dairy products.

Are phosphates safe?

The FDA and the Center for Science in the Public Interest list phosphates as COMPLETELY SAFE.

Why would water utilities use phosphates?

Approximately 50 percent of water utilities nationwide safely use Phosphates to control internal pipe corrosion. Many water utilities have been using phosphates since the passage of the Environmental Protection Agency's (EPA) Lead and Copper Rule (1992) to reduce lead and copper levels in tap water.

Do other water utilities use phosphates?

Yes, approximately 50 percent of water utilities nationwide use some form of phosphate to control internal pipe corrosion – including: Washington Suburban Sanitary Commission, serving Montgomery and Prince George's Counties, MD; Rockville, MD; Fairfax, VA; Carroll County, MD; Washington D.C.

What type of phosphate will be added to the Raspberry Falls Water System to better protect copper pipes?

Dr. Marc Edwards, our corrosion and water quality expert from Virginia Tech recommends we use an orthophosphate which has been proven effective in studies and other water supply systems for pinhole leak prevention. Dr. Edwards recommends that we add approximately 1 milligram of orthophosphate per liter of water. Some sodas have approximately 500 milligrams per liter. EPA does its water-related health studies assuming people drink 2 liters of water per day, so the level of phosphate in our water will be hundreds of times lower than that. Research indicates people already consume 1,000 to 1,500 milligrams of phosphate per day in their diet. So, the amount we plan to add increases the average intake by 0.1 to 0.2 percent.

Are there potential drawbacks to using phosphates, what are they?

We do know that using inhibitors will increase Raspberry Falls water and wastewater treatment costs, which we are currently working on.

How will the use of phosphates impact wastewater treatment?

Loudoun Water will likely be required to remove phosphates that we add from the Raspberry Falls wastewater. We are working on estimating what these costs are to remove orthophosphate. However, because phosphate is in our diet and in sewage, the amount of phosphate we add will only increase phosphate in the sewage by about 5-10% over existing levels.

What should I do if I get another pinhole leak after phosphates are used?

It's important to remember that, for various reasons, pinhole leaks have occurred since copper was first used. Regardless of potential methods that may be identified by Loudoun Water to minimize these occurrences in our service area, pinhole leaks can reasonably be expected to continue at some level in the future. As with any plumbing leak, call a licensed plumber to make necessary repairs.

Will the use of phosphates completely eliminate all copper pipe pinhole leaks?

No. While we believe the use of orthophosphate can significantly reduce pinhole leak activity, it is unlikely to stop the problem completely.