

## About Orthophosphate

Orthophosphate is a commonly used corrosion inhibitor that is added to finished drinking water. Orthophosphate works by forming a protective coating inside of pipes in the distribution system and in customer homes to prevent lead from leaching into drinking water. Although available in several forms, the Cordova Water Department will add orthophosphate as disodium phosphaste. Orthophosphate is a food-grade chemical that is certified by NSF International, which is an independent testing organization that certifies and writes standards for products, including drinking water treatment chemicals, to help protect the food, air, water and consumer goods that we use.

Orthophosphate, also known as phosphoric acid, is one compound added to food to control alkalinity/acidity in foods and beverages. It is an odorless, colorless, tasteless substance which is approved by the EPA for use in drinking water treatment, and by the Food & Drug Administration (FDA) for use in consumer food products. The Food & Drug Administration generally recognizes Phosphoric acid as safe, though its use must conform to good manufacturing practices. Phosphoric acid is found in soft drinks (soda), acidified skim milk, and some cheeses.

### Why Orthophosphate is being used to treat the City's Water

23 homes were tested in 2001 for lead and copper. The level of lead exceeded the EPA's Maximum Contaminant Level (MCL). The City's water is considered to be "soft water". Soft water causes lead to leach out of plumbing and fixtures that have lead solder. Even though the water delivered by the City does not contain lead, the EPA requires the water department to treat the water. There are several corrosion control chemicals that can be used to treat the water. Due to the characteristics of our water it was decided to inject an orthophosphate, disodium phosphate.

### Is orthophosphate safe?

A. Yes. Orthophosphate (phosphoric acid) is approved for use in drinking water treatment by the EPA, and is also certified by the National Sanitation Foundation (NSF), and independent international testing organization that certifies and writes standards for products, including drinking water treatment chemicals, to help protect consumers, as well as the food, air, water and consumer goods that we use.

### Will orthophosphate have any effect upon my drinking water?

A. Orthophosphate should not affect the taste, color, or smell of your drinking water. A possible **temporary** effect of the orthophosphate treatment is red water. Red water is a term used to describe discolored water that results from disturbance of iron oxide (rust) deposits inside water mains. Orthophosphate may cause this to occur in the initial stages of the application, temporarily resulting in red or rust colored water for some residents. If you experience red water, allow your cold water tap to run until the water runs clear. If this does not occur after several minutes, call the City of Cordova Water Department at 424-6338. Residents who experience red water should not cook, drink, or wash clothes until they have flushed their cold water tap and the water is clear again.

### Why is orthophosphate being added to our drinking water?

A. Some homes in the City of Cordova have exhibited elevated levels of lead in their drinking water since 2001. It is believed that the source of the lead levels in these homes is from lead

plumbing components leaching into the drinking water. Orthophosphate acts as a corrosion inhibitor by forming a protective film on the interior of pipes which protects the pipe material from the corrosive effects of water, which reduces or eliminates the potential for lead leaching into the water.

**Q. My water has a reddish tint. What should I do?**

A. The reddish tint is iron oxide from the water distribution piping. Sudden changes in the system, such as when a fire hydrant is opened, can stir up the iron oxide sediments and cause temporary discoloration. If you run your water for a short time it should clear. If not, call the Water Department at 424-6338. City water operators will flush the lines through fire hydrants during the year to minimize the build up of sediments in pipes, which helps reduce chances of discolored water. Even though the water is discolored and has sediments, disinfectants are still present and the water is safe once it clears up.