



TECHNICAL INFORMATION ON PHOSPHATE EXPOSURE

Using only the highest quality drinking water treatment chemicals is a key component to a successful water treatment plant operation. As a supplier, we recognize that consumers are understandably concerned about the chemicals that are used in their water. Carus Corporation as a supplier understands this. That is why Carus Corporation has been supplying high quality, specialty blended phosphates to help improve water quality for 20 years.

Carus phosphate products are approved and certified by NSF International for safe use in drinking water. Additionally, many Carus phosphates meet kosher standards.

Phosphorus, in many forms, is used by the food industry to enhance taste and as buffering agents, dough conditioners, yeast nutrients, texturizers, emulsifiers, and sequestrants.

A few examples are listed below:

- Phosphoric acid — up to 0.1% (1,000 mg/L) in cola drinks.
- Dibasic sodium phosphate — up to 3% (30,000 mg/L) in pasteurized process cheeses, cheese spreads, and cheese foods, and up to 1.6% (16,000 mg/L) in prepared cereal.
- Sodium tripolyphosphate — present in ham, bacon, and turkey.
- Sodium hexametaphosphate — up to 1% (10,000 mg/L) in angel food cake.
- Sodium acid pyrophosphate — up to 1% (10,000 mg/L) in muffins and donuts.
- Monobasic calcium phosphate — up to 25% (250,000 mg/L) in toothpaste.
- These ingredients are noted directly on the label of these and many other products.

Phosphorus (as phosphate) is an important nutrient for the development of healthy bones and teeth and for living cells to produce and store energy. It helps with muscle contractions, kidney function, and normal heartbeat and nerve signals. The USDA set a minimum recommended daily allowance (RDA) of phosphorus for adequate metabolism. The RDA varies by age and gender. Our daily phosphorus requirement for healthy lifestyle is supplied mostly through milk and meat proteins, as well as whole grain breads and cereals.

Phosphate-based food additives, similar to Carus phosphates for drinking water have been consumed for over 75 years. It is well known that there are no harmful effects from long-term exposure.

Carus phosphates are proven to be very effective and safe for the reduction of lead and copper in drinking water for city supplies and in hospitals, schools, and residences. Controlling these metals is critically important for the safety of water users.

If you would like further information, please contact the Technical Services Department of Carus Corporation at 800-435-6856.