

Benefits of Phosphates

It is well documented that phosphorus is an essential nutrient, critically important for every cell of the body, as it is involved in protein synthesis, cell signaling, bone formation, and acid-base regulation. The predominant mineral in bones is hydroxyapatite, which is a compound that includes both calcium and phosphorus. The presence of both calcium and phosphorus is essential for growth and maintenance of healthy bones and teeth.

Inorganic phosphates, a source of phosphorus, are one of the most widely used functional food ingredients and have a long history of safe use in food. Applications of the various salt forms of phosphates (e.g. potassium, calcium, sodium, magnesium, etc.) include moisture loss inhibitors in frozen and processed meats, leavening agents in baked goods, emulsifiers in dairy products, mineral fortification in beverages, and buffering agents for a variety of food formulations. Over decades, numerous toxicology studies have examined the safety of phosphate based food additives. These toxicological studies have been reviewed by several panels of internationally recognized experts, including the Joint FAO/WHO Expert Committee on Food Additives, a panel of worldwide experts, and the Select Committee on GRAS Substances (SCOGS); this science is the basis upon which worldwide regulatory approval has been granted to phosphate based food additives.

Phosphates have undergone numerous additional reviews and are recognized as safe and allowed for use in food by many international regulatory authorities, including the US Food and Drug Administration and the European Food Safety Authority. At a general international level, the Codex Alimentarius Commission has adopted numerous provisions (categories of use and use levels) for phosphate based food additives.