The Safety of Phosphates used as Food Additives

Phosphates are essential for the life of all organisms
Phosphates are widely present in nature, in rocks, soil, and water, and in all living organisms. Phosphates are essential for plant growth, crops, and human health and are naturally present in nearly all foods.

As the human body constantly excretes phosphates through the kidneys, it is essential to have a regular adequate intake in our diets. The contribution of added food phosphates to total phosphorus intake is assumed to be 20 to 30%.

Phosphate helps preserve the food’s texture and colour
Food phosphates are used in a variety of different foods, including meat, cheese and dairy products, cakes and biscuits, soft drinks, etc.

- Food phosphates help preserve the product’s texture and colour over a long period of time, e.g. most of the products sold in supermarkets. Without them, many food products would not last long enough to reach the consumer;
- The Codex Alimentarius (a global regulatory body) is listing many functional classes and technological purposes for which phosphates may be used, e.g. acidity regulator, raising agent, emulsifying salt, stabilizer or anticaking agent.

Safety of phosphates in food has been repeatedly confirmed
Many studies have been carried out on different food phosphates to assess their safety as food additives. These studies confirm the experience of decades of use of phosphates as food additives, without any recorded negative effects.

Food phosphates have been used safely for over 100 years and are authorised as food additives worldwide, following detailed assessment of European and international independent bodies, which have repeatedly reconfirmed their safety.

In the European Union it is prohibited to use additives in food unless the use of additives has been specifically authorised. For the additive to be authorised, it must meet the following criteria:

- it is safe,
- there is a justified technological need,
- their use does not mislead the consumer,
- they bring benefits to the consumer.
Prior to authorisation, all additives must undergo a strict scientific risk assessment and no additive can be used without first being evaluated by the European Food Safety Authority (EFSA) or its predecessor the Scientific Committee on Food (SCF). EFSA is currently re-evaluating all permitted additives taking the latest available scientific evidence into account.

In 1990 the European Scientific Committee of Food (SCF) re-confirmed the conclusions from WHO/FAO Joint Expert Committee on Food Additives (JECFA) from 1980 in relation to the safety of phosphates used as food additives. The most recent EFSA opinion on phosphates reached the same conclusions. EFSA re-evaluation of phosphate additives is foreseen to be finalised in course in 2018.

Further information

**The European Commission about food additives:**
https://ec.europa.eu/food/safety/food_improvement_agents/additives_en

**EFSA about risk assessment of food additives:**

**PAPA Q&A about food phosphates:**
https://hnlkg4f5wdw34kx1a1e9ygem-wpengine.netdna-ssl.com/wp-content/uploads/2017/01/PAPA_04_Food-Phosphates-brochure.pdf

**EFSA - establishing a safe level of substances in food:**
https://www.youtube.com/watch?v=BSoRFqRAoE