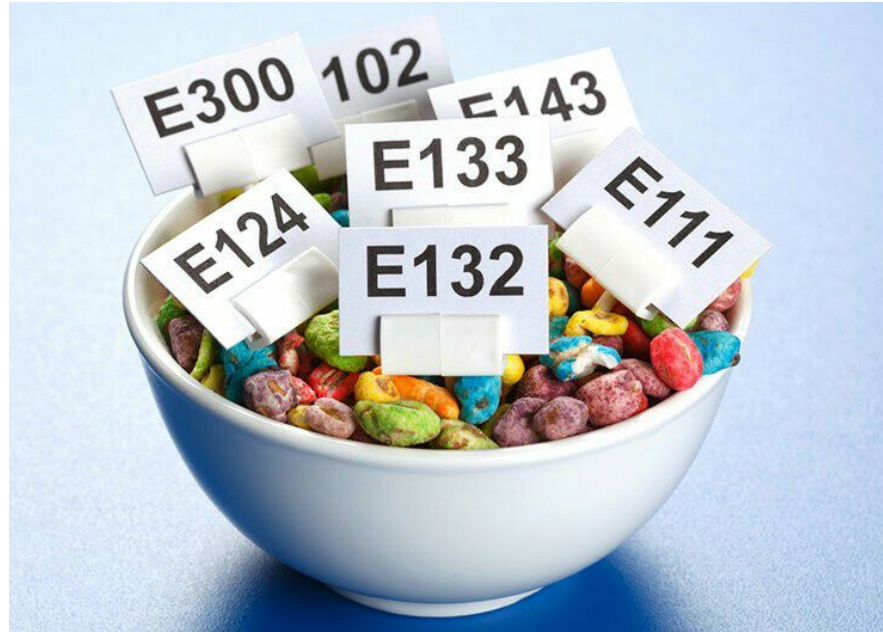


# Food Additives



# WHAT ARE FOOD ADDITIVES?

Substances that are added to food to maintain or improve the safety, freshness, taste, texture, or appearance of food are known as food additives.



# PURPOSE OF FOOD ADDITIVES

**Food additives are substances intentionally added to food either directly or indirectly with one or more of the following purposes:**

- To maintain or improve nutritional quality.
- To maintain product quality and freshness.
- To aid in the processing or preparation of food
- To make food more appealing
- Control the acidity and alkalinity, and to provide leavening.

# COMMON TYPES OF FOOD ADDITIVES:

- COLORS
- EMULSIFIERS
- FLAVORINGS
- GELLING AGENTS
- PRESERVATIVES
- SWEETENERS
- ANTI-CAKE AGENTS
- ANTIOXIDANTS
- ACIDULANTS



Color is commonly added to foods for good visual appeal

# COLORS, EMULSIFIERS AND FLAVORINGS



Emulsifiers are molecules with one water-loving (hydrophilic) and one oil-loving (hydrophobic) end. They make it possible for water and oil to become finely dispersed in each other, creating a stable, homogenous, smooth emulsion.



Flavorings are added to food products to give, enhance or intensify flavor

# PRESERVATIVES

Preservatives are chemical substances that are added to food to help:

- prevent spoiling
- improve appearance
- maintain the food's nutritional quality

Some preservatives come from natural sources like salt, sugar, vinegar and citrus juice. Other preservatives are human-made or synthetic.



# What foods have preservatives added to them?

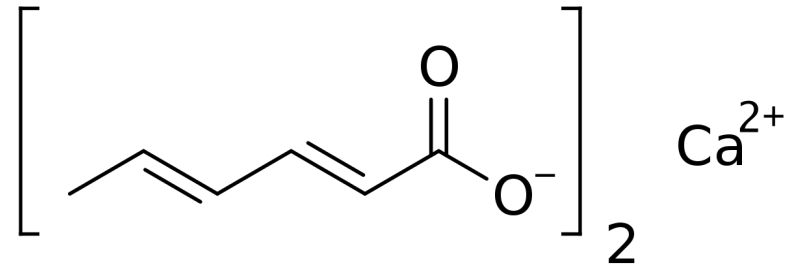
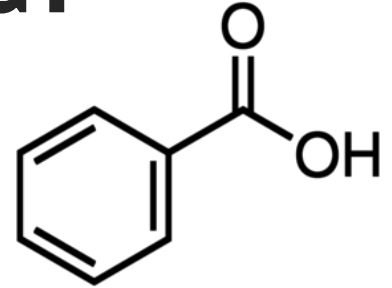
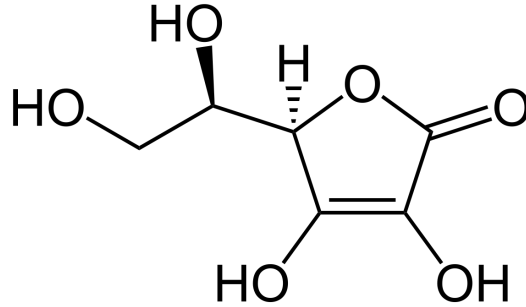
Processed, packaged foods like some crackers, cereals, breads, snacks, ready-to-eat meals, cheese, yogurt, deli meats, sauces and soups may contain preservatives.



# What are some examples of preservatives used in food?

Here are some examples:

- Benzoic acid
- Calcium Sorbate
- Erythorbic Acid
- Potassium Nitrate
- Sodium Benzoate







- Provide texture in baked goods it stops them from drying out.
- Lowers the freezing points in ice creams.
- Acts as a preservative in jams.
- Strengthens "mouthfeel" in soft drinks.
- Adds bulk to baked goods.

# SWEETENERS, ANTIOXADANTS AND ACIDULANTS



Acidulants are additives that give a sharp taste to foods. They also assist in the setting of gels and to act of preservatives.

Common acidulates; acetic acid, citric acid, fumaric acid, lactic acid, malic acid, posphoric acid, tartaric acid.



Antioxidants are added to food to slow the rate of oxidation and, if used properly, they can extend the shelf life of the food in which they have been used.

# VOCABULARY

1. Leavening - a substance used in dough to make it rise, such as yeast or baking powder.
2. Emulsifier - a substance that stabilizes an emulsion, in particular an additive used to stabilize processed foods.
3. Bulk - the mass or size of something large.
4. Flavoring - a substance used to give a different, stronger, or more agreeable taste to food or drink.