

# Propionic Acid



## HISTORY

Propionic acid was discovered studying the degradation products of sugar, and eventually found to prevent the growth of fungus and molds.

## PRODUCTION

Propionic acid inhibits the growth of mold and some bacteria at the levels between 0.1 and 1% by weight.

## PROPIONIC ACID

Propionic acid, molecular formula  $C_3H_6O_2$ , is a naturally occurring carboxylic acid.

Propionic acid is usually the second most abundant short chain fatty acid (SCFA) produced during fermentation, such as that of mash made from corn meal.

Used as a preservative and flavoring agent in various types of packaged foods, propionic acid is considered very safe in food. It has become an important solution in the quest for safe food additives that keep products fresh and enhance flavor. Typical concentrations in food are slight and the acid is digested naturally.

## APPLICATIONS

**In ready-to-eat meats, propionic acid**

can be used:

- to inhibit *Listeria* with other inhibitors
- for low usage rate, low flavor impact, low cost-in-use

**and can be combined with:**

- other synthetic antimicrobials

**Format**

- buffered liquid

**In baked goods, propionic acid** can be used:

- for mold control in bakery products
- to extend microbial shelf life of bakery products, especially corn tortillas
- consistent, low-cost-in-use, and low organoleptic impact with buffered products

**and can be combined with:**

- sorbic acid
- benzoic acid
- parabens
- phosphoric acid

**Format**

- buffered liquid

Sources:

<https://www.sciencedirect.com/topics/neuroscience/propionic-acids>

<https://sciencing.com/what-is-a-propionic-acid-13712145.html>

[https://en.wikipedia.org/wiki/Propionic\\_acid](https://en.wikipedia.org/wiki/Propionic_acid)

<https://study.com/academy/lesson/propionic-acid-toxicity-uses-safety.html>

