

Food and Flavor

Enhancing food naturally

Replacing artificial food additives, BioAmber's biosuccinic acid is used mainly as a flavor enhancer and pH regulator. It gives a salty, savory, meaty taste and enhances the umami sensation – the recognizable savory flavor common in Asian food. As a flavor enhancer, it makes the mouth water in drinks, soups, baked goods and processed meat products like sausages.

BioAmber's biosuccinic acid offers not only cost-effective performance but an

improved environmental footprint as well. The fermentation process used to transform renewable feedstocks into biosuccinic acid sequesters CO₂, significantly reducing overall carbon emissions. The European plant has been audited and passed as being food grade.

Succinic acid is used as acid or sodium salt or as a starting material for other molecules like esters. It also serves the food industry as a

Umami - the savory flavor

Biosuccinic acid can provide the savory 'umami' taste in food. Umami, recognized as the fifth taste after sweet, sour, salt and bitter is widely used in Asian food. In Western food, tomato or fermented and cured products like cheese and ham have a natural umami taste.

BioAmber's biosuccinic acid is:

Kosher, Halal, FCC compliant, natural, compliant with EU regulation 1334/2008
pH 2.5-3
FEMA no 4719
pKa1 = 4.2 and pKa2 = 5.6

pH regulator, an acidic seasoning in synthetic liquor, soy drinks and sake and an acidifier in wine.

Biosuccinic acid has a diverse range of uses - as an acidulant, flavoring agent, antimicrobial, salt replacement, fat substitute, emulsifier and preservative.



BioAmber is a renewable chemistry company, leading the field in biobased succinic acid. BioAmber's new product platform creates a foundation for customer innovation in a broad range of applications and markets, where biobased succinic acid is cost-competitive and offers superior functionality and performance with a better environmental footprint.

 **BioAmber**
CHEMISTRY INSPIRED BY NATURE