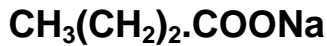


BUT-ACID

BUT-ACID is the acid salt of *n*-butyric acid. It is a naturally occurring acid in the digestive tract of healthy animals and it is lost from the gut in times of stress.

THE PRODUCT:



Butyric acid is produced in the hindgut of most animals by the fermentation of cellulose fibres by the cellulolytic bacteria such as *Butyrivibrio fibrisolvens*. It is therefore found in the caecum and hindgut of the animal as it is used after more readily available carbohydrate sources have been used.

Butyric acid is biologically the most active fatty acid and it has a lower pK_a than propionic acid but with a higher boiling point. This means it is both more acidifying and more stable through heat treatments than propionic acid and more thermally stable than formic acid.

Sodium butyrate contributes to the maintenance energy requirements of piglets. In long term feeding trials 2kg/Te has been shown to improve ileal villi length by 30%. It is metabolised by the epithelial cells of the colon and has been shown to regulate the epithelial cell proliferation of the colon. The health of the gut relies on the presence of short chain fatty acids such as butyric acid.

Butyric acid is lipophilic and has a low MIC against a wide range of pathogenic

bacteria, working at millimolar levels in the gut.

Butyrates are also known to inhibit the growth of pathogenic bacteria in the gut, including some Clostridia, Salmonella and *E coli*. It is much less active against commensal microflora such as Lactobacillus.

Butyric acid works in synergy with the fructo-oligosaccharides that are widely used as alternatives to in-feed antibiotics.

MAJOR BENEFITS:

- BUT-ACID is a potent salt of butyric acid, which reduces the strong pungent odours associated with this acid.
- BUT-ACID can be used in vitamin premixes as it is buffered and carried on a powder matrix.
- BUT-ACID is non-corrosive and does not inhibit palatability.
- BUT-ACID is biodegradable and causes no problems to the environment.
- BUT-ACID has high thermal stability in heat-treated feeds.
- BUT-ACID is a fine free flowing powder for easy incorporation into animal feed

USAGE:

1 - 5kg per Tonne of feed, depending on the raw materials being used.

PACKAGING:

BUT-ACID is packed in 25kg multi-walled paper sacks.