

## B-TOX SB

**Well-balanced mixture of highly adsorbent activated clay minerals, preservatives and bio-organic materials to fix and remove toxins in animal feeds.**

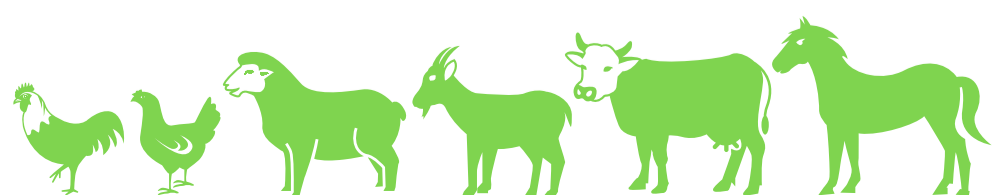
### Composition:

Yeasts (*Saccharomyces cerevisiae*), Sorbitol, Fatty acids (butyric) esterified with glycerol. Additives: Bentonite and Sepiolite. Preservatives: Calcium propionate (E282). Mixture of flavoring compounds (artichoke, milk thistle).

Mycotoxins are toxic metabolites produced by moulds, before harvest or during storage. More than 400 mycotoxins are known, and many of them have been intensively studied in order to know their effect on animal performance and animal health. Main major effects of mycotoxins in general are:

- Reduced feed intake
- Feed refusal
- Respiratory disease
- Liver damage
- Immune suppression
- Reduced response to vaccination
- Kidney damage
- Reduced fertility

Moulds can grow and mycotoxins can be produced pre-harvest or during storage, processing or feeding. Mould growth and mycotoxin production are also related to plant stress caused by environmental conditions (heat, water, insect damage,...). The effect of mycotoxins in feed depends on the specific mycotoxin or mycotoxins present, the level of contamination and the length of time the animal has been consuming the mycotoxin(s). Symptoms include immune depression, reduced feed intake, lower production and gastro-intestinal disorders, suppressed growth or even death.



## B-TOX combines 6 unique strategies to combat mycotoxins:

**1. Clay minerals absorb and immobilize mycotoxins in the intestines.** New added clay increased bind capacity achieving outstanding results for the principal mycotoxins.

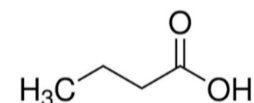
**2. Yeast components** stimulate the immune response. Yeast and yeast extracts (*Sacharomyces*) have been used which are rich in Mannan Oligo Saccharides (MOS) and Beta-glucans.

- Mannan Oligo Saccharides possess a toxin binding capacity and they optimize the intestinal flora.
- Beta-Glucans are known for their immune supportive function (mainly the non-specific immunity).

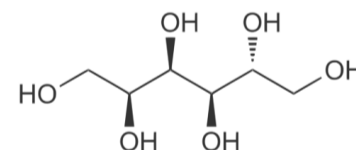
**3. Bio-organic material protect** the liver and have liver detox activity. Artichokes (*Cynara cardunculus*) has a demonstrated antioxidant, choleric, hepatoprotective, bile-enhancing and lipid-lowering effects. (Plant Foods Hum Nutr. 2015 Dec;70(4):441-53.). Milk thistle, also known as silymarin (*Silybum marianum*), has been used for hundreds of years as an herbal remedy for liver problems.



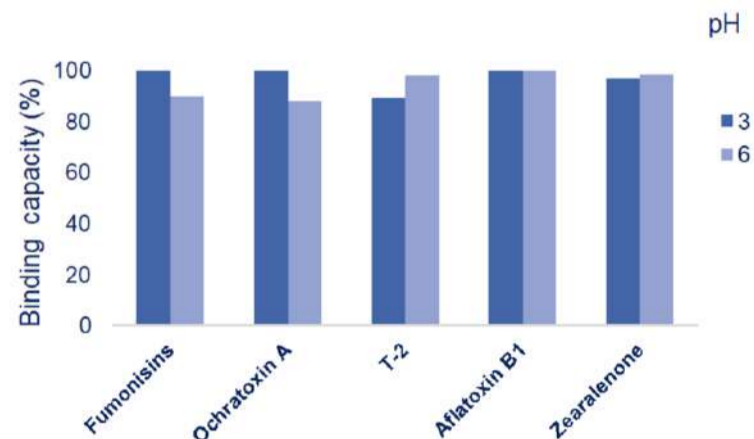
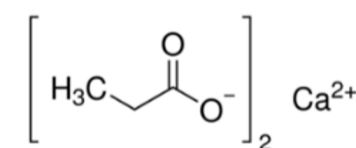
**4. Butyrate** helps in the transformation of the toxins. Butyric Acid is a specific source for cellular energy which will contribute to proliferation of epithelium cells (increased villi length and absorption surface) and it contributes to selective anti-bacterial activity. Further butyric acid reduces the invasiveness of specific pathogens (e.g. Salmonella)



**5. Sorbitol** works as a laxative & used to relieve occasional constipation and irregularity. It stimulates the liver function and helps in the excretion of toxins in the blood.



**6. Calcium propionate** acts as preservative and is especially effective as fungicide and hereby inhibits mold growth and production of mycotoxins during storage. Propionates prevent microbes from producing the energy they need, like benzoates do. However, unlike benzoates, propionates do not require an acidic environment.



### General notes:

Product quality can only be guaranteed with adequate storage. Close packaging firmly after use. For optimal storage, it is advised to keep the product in a cool and dry place, protected from direct sunlight.

### Administration:

To be mixed in the feed.  
 During dry period: 0,5 kg/ton of feed.  
 During rainy season or when molds are present: 2 kg/ton of feed.  
 Presentation: 25 kg paper bag with plastic inner line