

## WHAT IS AFLABIND™?

It's a toxin binder, ammonia binder and anti-caking agent with a very high cation-exchange capacity (CEC). Aflabind is suitable for use in all types of animal feed. AFLABIND contains an extremely pure form of clinoptilolite, which is a zeolite naturally formed by the devitrification of volcanic ash in lakes and marine water.

## DIRECTIONS FOR USE

### APPLICATION

Add to feed mixer with other ingredients and mix homogeneously.

### INCLUSION RATES\*

General inclusion: 1-4 kg per ton of feed.

Mycotoxin Control & Removal: 4-6 kg per ton of feed.

Ammonia Binding: 5-15 kg per ton of feed.

\*Otherwise as directed by your nutritionist.

### Aflatoxin Level AFLABIND™ Ammonia AFLABIND (ppb) Inclusion Rate\*

#### Concentration Inclusion Rate\*

<20	1 kg	Low	5 kg
20-40	2 kg	Medium	10 kg
40-60	3 kg	High	15 kg
60-80	4 kg		
80-100	5 kg		
>100	6 kg		

\* Per ton of finished feed.

## HOW DOES AFLABIND™ WORK?

**AFLABIND™** contains high purity clinoptilolite (minimum 95%) one of the most effective natural zeolites of the Heulandites type. It is a crystalline hydrated aluminosilicate with a three dimensional honeycomb structure. The typical structure contains 2-8 Angström sized pores. These pores are by nature negatively charged by the cation Ca, K and Na. These cations can absorb ammonium and heavy metals such as Pb, Hg, and Cd, and grants AFLABIND™ the capacity to Exchange cations. It is this high Cation Exchange Capacity of clinoptilolite that provides most of AFLABIND's useful properties.

## QUALITY ASSURANCE

**AFLABIND™** is produced under a strict quality assurance procedure that adheres to FAMI-QS code for pre-mix and feed additive manufacturers dated October 20, 2006. This European Code of Practice for Animal Feed Additive and Pre-mix Operators ('Code') responds to the Regulation of the European Parliament and the Council laying down requirements for feed hygiene, (1831/2003/EC), articles 20 to 22 which encourage the development of guides for good hygiene practices and the application of HACCP, (Hazard Analysis Critical Control Point) principles.

Implementation of the code aims to ensure the safety of feed additives and pre-mixes, the operation of businesses in accordance with European feed hygiene requirements, and improved traceability. The code also applies to imports from third countries of feed additives and pre-mixes.

"100% Natural mycotoxin adsorption & ammonia binding technology for today's modern farmers and livestock producers"

## PACKAGING

25 KG. Paper bag,

1000 kg. totes available on request

Diversified Nutri-Agri Technologies Inc.,

3292 Thompson Bridge Rd. #208, Gainesville, Georgia 30506, E-Mail [info@dinatec.com](mailto:info@dinatec.com),

Visit our web site at <http://www.dinatec.com>; Phone 770-531-1309, FAX # 678-608-2770;

We Deliver Optimum Profitability and Performance

## Authorized Distributor



**DINATEC**

*Quality You Can Trust*

# Aflabind™

We can show 99.2-100% in vitro efficacy against AFLATOXINS



## HOW DOES AFLABIND™ CONTRIBUTE TO A SAFER AND HEALTHIER ENVIRONMENT?

- High affinity for binding ammonia helps reduce respiratory problems.
- Promotes a safer and healthier environment.
- Diminishes wet droppings and wet litter caused by diarrhea.
- Reduces ammonia emissions and odor from litter to improve air quality.
- Bio-degradable and environmentally friendly upon excretion.
- Non-toxic to both animals and humans.

"A Dynamic Approach to Nutri-Agri Product Research and Technology Development"

## Do Mycotoxin adsorbents absorb nutrients?

In vivo tests will show if the toxin binder has absorbed nutrients. At *in vivo* trials, Control vs. Control plus Mycotoxin Adsorbent; if the Control plus Mycotoxin Adsorbent does worse than the Control, it will be an indication that it is absorbing nutrients. **Diversified Nutri-Agri Technologies Inc., will be pleased to offer valid testing protocols for *In Vivo* as well as *In Vitro* conditions.**

## THE BENEFIT OF AFLABIND™ - A VERY HIGH ION – EXCHANGE CAPACITY

The high ion-exchange capacity is at the very core of AFLABIND's mode of action which makes it an excellent toxin binder, anti-caking and ammonia binding agent.

**AFLABIND™** has a low binding affinity for antibiotics, coccidiostats, Vitamins, minerals, amino acids, other nutrients and feed additives leading to less waste, which in turn saves Money.

## WHAT ARE THE MAJOR IMPROVEMENTS TO FEED QUALITY BY USING AFLABIND™ ?

- ◆ Guaranteed to increase *in-vitro* ability to bind aflatoxins and other types of mycotoxins.
- ◆ Strongly binds ammonium and heavy metals such as cadmium, nickel, lead and mercury.
- ◆ Improves uniform dispersion of feed ration ingredients by reducing agglomeration during mixing.
- ◆ Improves pellet durability.

## We can show a 99.2-100% in vitro efficacy against AFLATOXINS

## IS AFLABIND™ FREE FROM HEAVY METALS?

Yes, it has a high degree of purity and is free from heavy metals.

## COMPATIBILITY

Compatible with all types of feed ingredients.

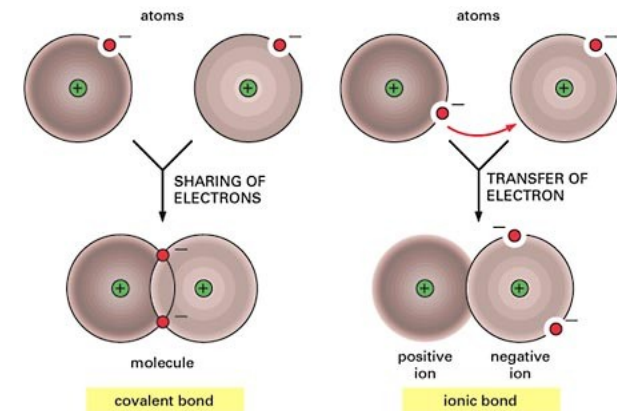
## WILL AFLABIND™ IMPROVE THE HEALTH AND PERFORMANCE OF THE ANIMALS?

Yes. Extensive research shows that adsorption of aflatoxins and other types of mycotoxins from the feed will:

- ◆ Improve growth rate and increase daily weight gain by improving feed conversion efficiency in all animal species.
- ◆ Support proper growth and development of bone tissue and structure.
- ◆ Improve egg quality in terms of internal quality, egg shell quality and results in fewer dirty eggs in commercial layers.
- ◆ Boost and strengthen the immune system to protect animals against various diseases.
- ◆ Minimize the risk of secondary bacterial invaders such as E. Coli and Salmonella spp.
- ◆ Provide high return on investment at low cost.



The ionic bond is the most important type of bond for the efficacy of chemical adsorbents.



The adsorption of cations and their exchange capacity, together with that of anions on the surface of colloids, is probably second in importance only to photosynthesis.

Known principles of organic chemistry confirm that an acid substrate favors the adsorption for lipo-philic or lipo-soluble molecules and that an alkaline substrate favors more the adsorption of hydrophilic or hydro-soluble molecules.

The above requires a systematic approach be taken in selecting specific adsorbents for specific mycotoxins. It relates to acidic substrate conditions and how they affect the normally positive charges in the outer boundaries of certain specific mineral based toxin binders such as **AFLABIND™**. Positive charged cations from the binder are bound with negative charged anions for certain specific mycotoxins.

As the pH level decreases, as in specific areas of the gastrointestinal tract, the numbers of electro-bonds also increase thus increasing the numbers of external or outer boundary sites where specific types of mycotoxins can be adsorbed.