

## **Characteristics of Perma-Guard Diatomaceous Earth**

The colloidal or particle size of Perma-Guard DE is between one and ten microns, which influence the insecticidal efficiency and adherence qualities.

Amorphous: (botanically) without developed structural organization  
(chemically) uncrystallized

Perma-Guard DE: Is not calcined, having less than .5% of Crystalline Silica

Perma-Guard DE: Is listed in the Federal Register as having “No Tolerance” requirement. It is truly non-toxic.

Perma-Guard DE: Its action is physical or mechanical, not chemical. Insects have not been known to become immune to its action.

Perma-Guard DE: Is speculate, causing a tactile response by the insect, results-it is highly repellent.

Perma-Guard DE: On a hardness scale of 1-9, Perma-Guard is a 7. The hardness of the cuticle of an insect is a 3. Perma-Guard DE destroys the cuticle, causing the insect to dehydrate.

## **Methods by which Perma-Guard DE Kills Insects**

1. Laceration of the chitin in the bellows of the joint
2. Severance of the muscles of the Tracheole valve
3. Perforation of the walls of the Trachea and the Tracheoles
4. Mandibular damage by abrasion
5. Esophageal laceration
6. Peritonitis, due to perforations in the walls of the digestive system
7. Severance of the constrictive muscles of the Malpighian system
8. Absorption of the wax, allowing dehydration
9. Starvation of the larvae.