Chemicals as "Active Ingredients" in Pest Control

Every insecticide has one or more chemicals that acts as the "active ingredient". An active ingredient is the element in the insecticide solution that gives it its repelling or killing power. The active ingredient is always listed on the product label.

Mode of Action

Every pest control chemical has a different mode of action. The mode of action is the way that the insecticide kills or repels the target pest. For example, Deltamethrin (the active ingredient in Delta Dust) kills by acting as a high-power poison to the insect's central nervous system. Hydramethylnon (the active ingredient in Maxforce Ant & Insect Bait) is one among a group of pesticides known "metabolic inhibitors".

How Determine the Toxicity of a Chemical

Most chemicals used in pest control are poisonous to humans. However, every chemical on the legal market must first be approved by a government agency called the Environmental Protection Agency (or EPA) before it is sold. Extensive studies are conducted to guarantee that an insecticide chemical is both effective against the target pest and safe for humans to use when directions on the label are adhered to. The most important thing to look for on a label is whether the chemical is safe for pest control use in residential areas, and in areas accessible to animals and children.

Common Chemicals

Follow these links to find out more about the most common active ingredient chemicals used in pest control.

- Abamectin
- Cyfluthrin
- Fipronil
- Permethrin
- Bifenthrin
- Hydramethylnon
- Pyrethrum
- Boric Acid
- Deltamethrin
- IGR (Insect Growth Regulator)