



ALL PEST INC.

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Frequently Asked Questions Regarding Pesticide Toxicity

How toxic are the chemicals that you use?

Clients are often very surprised to learn that the level of mammalian toxicity of the primary pesticides that we use, Suspend® SC, Tempo® SC WSP, and Demand® CS is very low indeed. The active ingredient in each of these pesticides is a member of the pyrethroid class of chemicals. Pyrethroids are synthetic versions of pyrethrins, plant extracts from the chrysanthemum family. (Pyrethrins are often used in topical applications for dogs, cats, horses, and cows to control ectoparasites such as fleas and ticks, and also used for topical applications to control human head lice.) Pyrethroids are regarded by scientists and medical doctors to be harmless to humans in low doses. These pesticides are applied by All Pest according to label directions at a concentration of, at most, 0.06%, which means, by weight, 9,994 parts inert ingredients (mostly water) to 6 parts of active ingredient. At this very dilute concentration, high doses of pyrethroids are practically impossible for humans to absorb, except by direct ingestion.

All pesticides must have an EPA-approved label. The purpose of a label is to direct the user regarding when, where, and how to apply the product. If one were to review the label of any of these three pesticides, he would find that these products may be used against a very wide variety of insects and other arthropods, and in a variety of settings – outdoors on structures, on plants, in stables and kennels, and also indoors – including sensitive settings such as stores, restaurants, nursing homes, schools, and even hospital rooms. These products may also be used to treat mattresses for the control of bedbugs. Clearly, these pesticides are considered by the EPA to be quite benign with respect to their human health risk.

These products are considered such low-risk pesticides that they are available for over-the-counter sale to the general public in 48 states (the exceptions being New York and California, two states known for their regulatory proclivity). They are sold on many websites throughout the country.

Other chemicals that we may use will be similar in toxicity, and still other chemicals (such as used in baits) are considered to be of even lower risk.

Are the chemicals you use bad for the environment?

The pyrethroid class of chemicals is very active against insects and other arthropods, yet has low mammalian toxicity. Pyrethroids break down quickly in the environment, and have no

appreciable build-up in groundwater. One disadvantage is that pyrethroids, like most classes of pesticides, are very toxic to aquatic organisms, so great care must be taken when applying them near bodies of water. All Pest technicians are not allowed to treat structures such as boathouses, docks, jetties, etc.

If the pesticides that you're using are so low-risk, why do your technicians wear all that protective equipment?

There are two types of toxicity: acute and chronic. Acute toxicity refers to the level of harm a single dose of a pesticide confers to an organism. We know that pyrethroid pesticides have very little effect on humans – they are virtually harmless - in small, single doses. Chronic toxicity refers to delayed poisonous effects from continuous or ongoing exposure to a pesticide. We do not know the long-term effects of continuous exposure to pyrethroids, since they have only been in use since the 1970's. Therefore, since All Pest technicians are applying and are exposed to pesticides on a daily basis, the company furnishes them additional Personal Protective Equipment (PPE) – exceeding label requirements - to protect their long-term health.

For most pyrethroid pesticides, the label requirement for PPE is boots, long pants, and long-sleeved shirts. Our technicians additionally wear gloves, a filtering respirator, and a helmet with face shield.

Technicians from other companies are often seen applying pesticides in shorts, tee shirts, and baseball caps. A logical assumption is that they are applying a less toxic product than the product our company uses. Usually, however, they are not applying less toxic pesticides than All Pest technicians. Indeed, they are probably applying one of the pyrethroid compounds, possibly even the same pesticide as All Pest technicians use, because the pyrethroid class of chemicals is virtually the only one available to today's pest management professionals for many types of applications. Other companies are simply choosing to ignore the possible threat of chronic toxicity to their employees.

Why doesn't your company use any of the "green" products available?

All Pest is dedicated to applying pesticides in a legal and ethical manner, and with as little risk to humans and the environment as possible. There are "green" products available that reduce this risk compared to traditional pesticides. However, while "green" products are lower risk and have lower environmental impact, they nevertheless are much less effective than pyrethroid pesticides. Our clients have become accustomed to a high level of control of pests (such as spiders), and if we were to use any of the "green" products available today we are quite certain that our clients would be disappointed in the results. We believe that, at some time within the next decade, researchers will develop products that are both efficacious and "green." When we believe that a product(s) possesses both of these properties we will certainly offer it to our clients.

Are your technicians trained and qualified to perform pest control work?

All Pest technicians are subjected to a thorough background check before their hire, and are then rigorously trained. Their training far exceeds state and national requirements. Every technician hired by our company must become a Certified Commercial Pesticide Applicator (the industry's

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highest credentialing level) within three years of his hire or face termination. Most pest management companies do not do this, preferring to rely on cheaper apprentice labor.

Are the pesticide fumes dangerous?

Many people are afraid of breathing pesticides “fumes” after an application. However, pyrethroids are not volatile compounds. The only time it can be inhaled (in any measurable way) is during its application – i.e., as it is being applied as a spray. The only “fumes” that are released after application is water evaporating as the application dries. The active ingredient is formulated into tiny micro-crystals, or sometimes into micro-capsules, which are designed to stick to surfaces once the product has dried.

Are the pesticides safe for kids/pets?

As long as people and pets are kept out of the treatment area until it is thoroughly dry, the pesticide application is very low-risk. The products that we use are specifically formulated and designed to stick to surfaces and stay there. Once dry, there are no fumes and no significant danger of inhaling the pesticide. The product label, which must be reviewed and approved by the EPA, allows for the treatment of stables and dog kennels, as well as human-inhabited areas such as homes, schools, and even sensitive areas such as hospital rooms.

What if my pet ingests some pesticide (such as a dog eating treated grass)?

The pesticide is applied at a dilution rate of, at most, 0.06%, which means, by weight, 9,994 parts water to 6 parts pesticide. In any given area, the total amount of pesticide is very small indeed, which means that, in this case, a dog would have to eat a very large amount of grass before ingesting enough pesticide to be harmful. Scientists and medical professionals regard pyrethroids and similar chemicals to be harmless to mammals in small doses.

Are treated surfaces safe to touch?

Yes. The pesticides that we use, Suspend® SC, Tempo® SC WSP, and Demand® CS are formulated as suspension concentrates or micro-encapsulations, which means that the active ingredient is made into tiny micro-crystals that stick to surfaces after the application is dry. It is true that in touching dry treated surfaces organisms, including humans, will pick up very small doses of the pesticide. However, these doses are so small that they are considered harmless by scientists and medical professionals. The label specifically states that we cannot treat areas where there is “*prolonged* human contact.” Therefore, we may treat areas such as doorknobs and railings, but we do not treat areas such as chairs, beds, or sofas.