

INNOVATIVE NEW INSECTICIDE

*DELIVERS ON
ITS PROMISE*



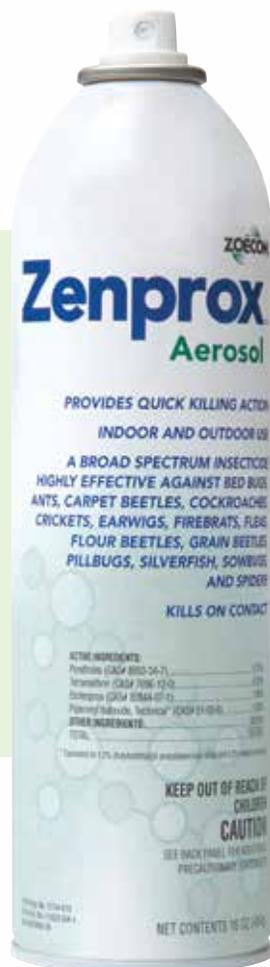
PMPs find
broad-spectrum
Zenprox[®] products
get the job done,
with added
business benefits.

Proven. Profitable. Professional.



ZENPROX® INSECTICIDE *DELIVERS ON ITS PROMISE*

Zenprox® Aerosol features an actuator that sprays upside down and an extension tube to help treat hard to reach areas where insects like to hide.



The latest innovation from Zoëcon Professional Products offers quick kill, broad spectrum control.

In this economy every edge helps, from a competitive advantage to having a more efficient service with fewer callbacks. Pest management professionals are finding a new non-repellent, broad-spectrum insecticide from Zoëcon Professional Products delivers on all accounts.

Zenprox® insecticide is a low-toxicity, contact-kill adulticide available as an aerosol and emulsifiable concentrate.

Joe Malinowski, commercial division manager at Terminix-Triad in Greensboro, N.C., said the broad label allows broadcast, spot, and crack-and-crevice treatment for “a whole



host of insects.” Technicians feel “very comfortable going from a bed bug job in a hotel to treating additional rooms for ants, cockroaches, fleas, silverfish or spiders.”

“We can go in with one product and feel confident we’re going to be able to take care of 99 percent of what we’re going to run in to at your average account, whether residential or commercial,” said Rich Smith, director of pest control service at Rose Pest Solutions in Northfield, Ill. Product inventory is reduced and technicians carry fewer products to their accounts.

The primary active ingredient in Zenprox® is Etofenprox, which



“We can go in with one product and feel confident we’re going to be able to take care of 99% of what we’re going to run into at your average account,” says Rich Smith of Rose Pest Solutions.

is “considerably different” from the traditional pyrethroids used in the U.S., explained John Neberz, business manager of Zoëcon Professional Products, a division of Central Life Sciences. “It has a wonderful toxicity profile and is extremely environmentally friendly, in addition to being very effective.”

Etofenprox is a pyrethroid ether while most pyrethroids are esters, explained Central Life Sciences Senior R&D Director Doug Van-Gundy. It still has the same mode of action of other pyrethroids – it’s a sodium channel blocker – but with a softer toxicity profile. Some pyrethroids are irritating, caus-

Zenprox® EC Goes the Distance Indoors

Battling fleas, bed bugs, occasional invaders? Few products are labeled for indoor broadcast applications, and only one delivers a full 30 days of control: Zenprox® EC Insecticide.

That’s why Terminix-Triad in Kernersville, N.C., used it for a tough flea infestation inside an upholstery warehouse after employees took in feral cats, said Division Commercial Manager Joe Malinowski.

Technicians applied a combination of Zenprox® EC and an Insect Growth Regulator to carpet, flooring and baseboards. “Results were excellent” with control achieved in five days.

Rich Smith, director of pest control service at Rose Pest Solutions in Northfield, Ill., had similar flea results using Zenprox® EC and Precor® Insect Growth Regulator. “We have been very happy with this combination and so have our customers.”

He also uses Zenprox® EC as an interior broadcast application to correct issues when pests escape exterior treatment, such as when ants come in from under slab foundations, as well as a spot treatment for indoor spider control.

Malinowski plans to use it as a broadcast spray this fall to control stink bugs, a real problem in North Carolina. He’ll apply it to key spots outside structures and spray indoors where necessary.

Zenprox® EC is ideal for spraying carpets following thorough crack-and-crevice treatment for bed bugs, said Charlie Pate, Mid-Atlantic region manager, Zoëcon Professional Products, a division of Central Life Sciences.

And it controls occasional invaders like American or smoky brown cockroaches that try to migrate indoors. They’ll succumb to the active ingredient Etofenprox just like fleas and bed bugs, Pate said.

A reduced-risk insecticide, Zenprox® EC contains a high concentration of PBO synergist. The combination of Etofenprox and PBO makes for an effective, long-lasting product that delivers quick kill to more than 25 pests.



The EC formulation of Zenprox® controls more than 25 species of insects, including ants.

Add an IGR for Extra Protection to Reduce Callbacks

Faced with a tough pest infestation? Rich Smith, director of pest control services at Rose Pest Solutions in Northfield, Ill. combines Zenprox® EC insecticide with Precor® or Gentrol® Insect Growth Regulator for a quick kill that breaks the pests' life cycle.

"I'm a big fan of IGRs for cockroaches and small flies," said Smith. "It's a cheap added layer of protection."

Some insects reproduce rapidly. "If you can halt that part, you only have to focus on killing existing pests and that infestation will end quicker."

Joe Malinowski, commercial division manager at Terminix-Triad in Kernersville, N.C., likes the broad-spectrum control of Zenprox® EC and Gentrol® IGR, which he uses to control bed bugs, ants, carpet beetles



Combining Gentrol® Insect Growth Regulator and Zenprox® insecticide reduces the incidence of callbacks and retreats, resulting in a healthier bottom line for PMPs.

and cockroaches.

IGRs are non-repellent juvenile hormone disruptors that prevent insects from maturing. Pests are unable to molt out of their pupae stage and die or adult pests become sterile and unable to reproduce, thus stopping future generations.

As a result, callbacks and retreats are reduced for a healthier bottom line and more satisfied customers.

ing skin sensitization, he said. "The Zenprox® formulation has a much reduced chance for causing skin irritation and does not cause parathesia."

Both formulations contain PBO, a synergist, that "gives it a little bit of a kick, providing quicker knockdown and greater residual action," said VanGundy.

MULTIPLE-ACTIVE AEROSOL.

Zenprox® Aerosol combines four active ingredients. It's not strictly a pyrethrin, explained Smith, who prefers using multiple-active products over single-active products "so I can avoid any kind of

resistance problems."

Plus, it provides a "good, quick kill." Smith regularly uses it to control small flies, filth flies, cockroaches and beetles.

Labeled for 14 insects, the aerosol features a crack-and-crevice tip for easy application to wall voids and tight locations between the carpet and wall, which makes reaching hard-to-locate pests like bed bugs easier, said VanGundy. Zenprox® Aerosol offers extended residual control for bed bugs, suppression of bed bug hatch, and kills newly hatched bed bugs.

The aerosol can be used indoors and out, giving PMPs more appli-

cation choices. A 16 oz. can covers up to 500 square feet. A 360° valve and ergonomic actuator make reaching tight spots easier and more comfortable.

EC-IGR ADVANTAGE.

The EC formulation, approved for indoor use on more than 25 pests, mixes easily with Precor® and Gentrol® Insect Growth Regulators, which disrupt an insect's life cycle to prevent re-infestations.

PMPs find a tank mix of Zenprox® EC and Precor® IGR Concentrate highly effectively on flea infestations, which have increased in recent years. Zenprox® kills fleas

immediately and provides up to four weeks of residual control; adding an IGR to the mix prevents the problem from returning, explained VanGundy.

It's also effective on invasive stink bugs, a growing infestation problem in more than 30 states, said Neberz. The product is ideal for treating cracks, crevices and voids in the home where the pests congregate.

The EC formulation is available in a 16 oz squeeze-and-measure bottle, with six bottles per case. It mixes easily with water, and can be applied with most application equipment.

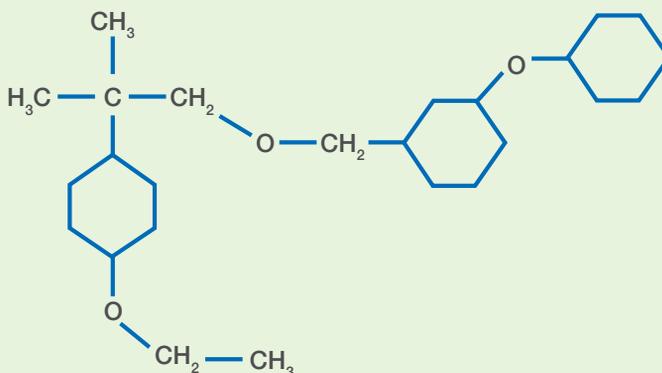
NO TRICKS REQUIRED. According to Smith, Zenprox® insecticide is “one of the more straightforward products we’ve used.” It performs as promised “without having to come up with any MacGyver-type

Zenprox® EC can be used alone or as a tank mix partner with Gentrol® IGR or Precor® IGR to control fleas, cockroaches, bed bugs, and more.

tricks to make it work.”

This instills confidence in meeting customer needs and boosts the bottom line since technicians make fewer re-services and avoid the associated costs.

With warehouses full of the next-best pest management solution, “we’re always pleasantly surprised when things work the way they say they do,” smiled Smith. 



The Science Behind Etofenprox

Low toxicity, reduced repellency, and decreased resistance are due to molecule's unique structure.

Etofenprox, the active ingredient in Zenprox® Insecticide, is not your ordinary pyrethroid.

“It’s a pretty simple molecule” with a different structure than most pyrethroids, said Central Life Sciences Senior R&D Director Doug VanGundy.

Etofenprox is an ether compound of carbon, hydrogen and oxygen. Conventional pyrethroids like permethrin and deltamethrin are ester compounds, which contain bromine or chlorine molecules.

Some pyrethroid molecules contain cyano groups which can irritate and excite pests (so-called flushing action), causing them to move off treated surfaces before they get enough exposure to kill them, said VanGundy. Etofenprox doesn’t have a cyano group, so repellency is reduced.

In addition, applicators experience less skin sensitivity using the product.

Etofenprox has a “very low toxicity,” about eight times less toxicity than conventional pyrethroids, VanGundy added.

The measure of toxicity is LD₅₀, with lower numbers indicating higher toxicity. The LD₅₀ of Etofenprox is more than 40,000 mg/kilo, similar to the toxicity profile of Insect Growth Regulators. The LD₅₀ of conventional pyrethroids is about 5,000 mg/kilo

“It’s surprising that a direct killing agent for bugs has such a low toxicity profile to other species such as mammals and birds,” said VanGundy.

Etofenprox has the same mode of action as other pyrethroids. It is a sodium channel blocker, which means it disrupts the movement of sodium through an insect’s nerve cells. “It clogs it up so the electric transfer in the nerve doesn’t happen,” VanGundy explained. As a result, “you get an excitation of the limbs and the insects reach a point where they turn belly up.”

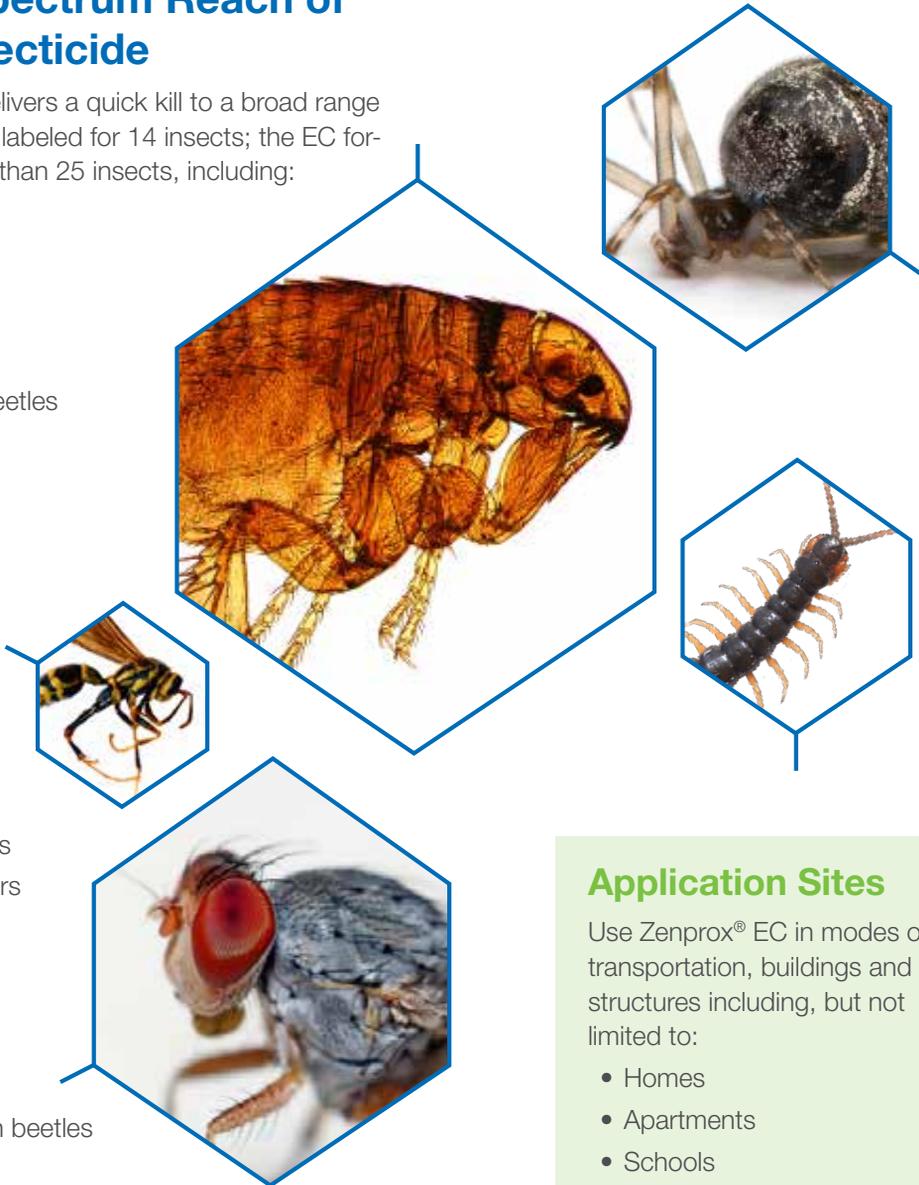
Etofenprox was created by a Japanese company in the early 1980s. Central Life Sciences acquired the rights to it in 2005, and has since developed dozens of formulations for the pest management, mosquito vector and companion animal markets, said John Neberz, business manager of Zoëcon Professional Products, a division of Central Life Sciences.

With the U.S. Environmental Protection Agency placing more scrutiny on pyrethroids, “we felt Etofenprox had a unique profile that would make it more attractive.”

The Broad-Spectrum Reach of Zenprox® Insecticide

Zenprox® Insecticide delivers a quick kill to a broad range of pests. The aerosol is labeled for 14 insects; the EC formulation controls more than 25 insects, including:

- Ants
- Bed bugs
- Carpet beetles
- Cockroaches
- Confused flour beetles
- Centipedes
- Crickets
- Darkling beetles
- Dermestids
- Earwigs
- Firebrats
- Flies
- Fleas
- Fruit flies
- Gnats
- Indian meal moths
- Lesser grain borers
- Millipedes
- Mosquitoes
- Moths
- Pillbugs
- Red flour beetles
- Sawtoothed grain beetles
- Scorpions
- Silverfish
- Sowbugs
- Spiders (Brown recluse, Black widow, others)
- Stink bugs
- Ticks
- Wasps



Application Sites

Use Zenprox® EC in modes of transportation, buildings and structures including, but not limited to:

- Homes
- Apartments
- Schools
- Medical facilities
- Offices
- Industrial operations
- Storage facilities
- Buses
- Trains
- And any non-food/non-feed handling establishment

Always carefully read the specific product label for exact use directions and the pests covered.



GENTROL® IGR AND ZENPROX® PRODUCTS ALLOW PROFESSIONALS TO BE MORE:

- **EFFECTIVE** – Bed bugs are resilient, professionals need more than one weapon.
- **ECONOMICAL** – Suppressing resurgence means reducing expensive callbacks and retreats.
- **ESTABLISHED** – Long residuals and suppressed resurgence means long-term control.
- **ENCOMPASSING** – Gets into walls, cracks and crevices to control the bed bugs you can't see.

Professional bed bug treatments should always include Gentrol® IGR in conjunction with Zenprox® products. Instant results are hard to come by with bed bug control, but over time using Gentrol® IGR plus a Zenprox® insecticide will help eliminate infestations and prevent rebounds. Zoëcon provides PMPs with bed bug solutions that can meet varying levels of infestation and/or application needs.

For more information about the Zoëcon complete line of pest solutions visit www.zoëcon.com/bedbugs.

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