



EXPERT GUIDANCE. IMPERATIVE CONTROL.

The Gentrol® family of products offers an indispensable, proven arsenal that reduces call-backs.

PUT YOUR CUSTOMERS AT EASE

After having an infestation, your customers are alarmed. Their worst nightmare is the bugs returning. Use Gentrol® products as part of any treatment protocol as an insurance policy against future re-infestations. Its insect growth regulator (IGR) stunts pest growth, preventing reproduction. The translocating active ingredient covers hard-to-reach locations to give you and your clients peace of mind knowing protection is present, no matter where it is applied. And its low toxicity in a range of formulations means you and your clients can feel secure using it in the most sensitive areas, making Gentrol® brand the partner you need to give your clients confidence in you.

GENTROL® PRODUCTS INSTILL CONFIDENCE EVERYWHERE

Gentrol® products featuring the IGR (S)-hydroprene, have delivered responsible solutions with bottom line results you can see since 1984. The Gentrol® product line is approved for use in very sensitive locations such as food handling establishments and in homes around pets and small children thanks to a low toxicity profile.

With a translocating active ingredient that continues to move after application, you can trust all Gentrol® products to control insects in hard-to-reach locations. Using IGR technology, Gentrol® products are an insurance policy to prevent rebound, future re-infestations and call-backs. The team of experts who bring you Zoëcon® products is ready to help you find your perfect Gentrol® formulation.

ABOUT (S)-HYDROPRENE

Developed by the makers of Zoëcon® products, (S)-hydroprene is an IGR that controls insects by interfering with normal development. This mode of action provides IGR control to prevent the growth and/or maturation of labeled pests. You can trust future infestations will be controlled with Gentrol® products.



German cockroaches



drain flies



fruit flies



stored product pests



bed bugs

APPLICATION SITES

Gentrol® products have a low toxicity profile making them ideal for use in highly sensitive areas such as:

- Food Handling Establishments
- Apartment Buildings
- Hospitals
- Homes
- Manufacturing Plants
- Kitchens
- Transportation Equipment



VERSATILE FORMULATIONS WORK WITHOUT HASSLE

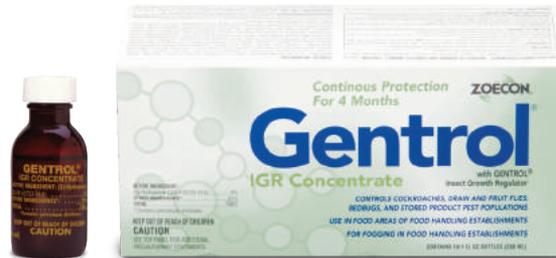
To accommodate an array of pest control and application needs, the makers of Zoëcon® products have developed different formulations of Gentrol® products to ensure you can get the job done.



GENTROL® IGR CONCENTRATE

- Controls cockroaches, drain and fruit flies, bed bugs and stored product pests
- Can be applied as a fogging agent, general surface spray, or tank mixed
- 1 oz. in 1 gal. of water per 1,500 sq. ft.
- 1 oz. in 12,000 cu. ft. when fogged
- Active ingredient: (S)-Hydroprene 9%
- Available sizes: 1 fl. oz. x 10 pack, 10 packs per case OR 16 fl. oz. bottle, 6 per case
- EPA Reg. #2724-351

120 DAYS OF CONTROL



Application Rates:
See label for complete
dilution and application
rate instructions. Follow
all label directions



German cockroaches



drain flies



fruit flies



stored product pests



bed bugs

EASY AEROSOL APPLICATION

Sometimes the easiest solution is to utilize an aerosol formulation and spray directly on the problem site. That's why the expert team that brings you Zoëcon® products developed two different formulations of Gentrol® products in an aerosol form. Easy and convenient to carry, these formulas can be applied as spot treatments or as a broadcast spray. Treatments become quick, simple and painless.



GENTROL® COMPLETE AEROSOL

- Dual-action control: insect growth regulator **plus** adulticide offers quick knockdown and residual control for easy one-step application
- Broad-spectrum control kills German cockroaches, ants, drain flies, fruit flies, spiders and additional labeled pests
- Active ingredients: (S)-Hydroprene 0.36%, Lambda-Cyhalothrin 0.05%
- Available in an 18 oz. aerosol can, 12 cans per case
- EPA Reg. #89459-84

GENTROL® AEROSOL

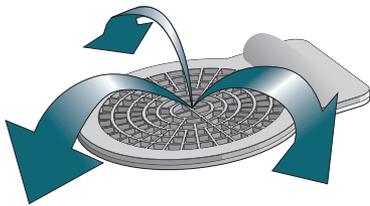
- IGR controls cockroaches, bed bugs, fruit flies and drain flies
- Can be applied as a spot treatment or a general surface spray
- Dissipating foam action targets insects in hard-to-reach areas
- Active ingredient: (S)-Hydroprene 0.36%
- Available in a 16 oz. aerosol can, 12 cans per case
- EPA Reg. #2724-484



DESIGNED TO PROVIDE DISCREET CONTROL

GENTROL POINT SOURCE® ROACH CONTROL DEVICE

Gentrol Point Source® Roach Control Device offers 90 days of control specifically against cockroaches in a unique **non-spray** format. Upon release, the active ingredient in Gentrol Point Source® products, (S)-hydroprene, translocates to a localized area affecting targeted insects without requiring direct contact with the device. This makes it a great option for food handling establishments, as it controls hard-to-reach areas including under counters, behind appliances, electrical boxes, lockers and vending machines where spraying insecticide isn't practical or convenient. One device treats up to 75 sq. ft.



UP TO
90 DAYS OF CONTROL



- Non-spray format utilizes translocating active ingredient to reach hard-to-treat areas for up to 90 days of control per device
- Discreet option; ideal for sensitive accounts and treatment sites
- Active ingredient: (S)-Hydroprene 90.6%
- 20 devices per box, 6 boxes per case
- EPA Reg. #2724-469



German cockroaches



drain flies



fruit flies



stored product pests



bed bugs



The image features a green background with various elements. At the top left is a large white plastic jug of Gentrol IGR Concentrate. To its right is a circular icon with a green hand symbol. Below the jug and icon are a small brown bottle and a white box of Gentrol IGR Concentrate. In the center, the text 'Insect Growth Regulator' is displayed. Below this, five insects are shown, each with a red target symbol on its body, and a horizontal line underneath. From top to bottom, the insects are: a German cockroach, a drain fly, a fruit fly, a stored product pest (moth), and a bed bug.

Insect Growth Regulator

German cockroaches

drain flies

fruit flies

stored product pests

bed bugs

GENTROL® IGR

Gentrol® products contain the (IGR) (S)-hydroprene which is a synthetic copy of a naturally occurring insect biochemical. IGRs prevent insects from completing their normal development to the adult stage. In insects with gradual metamorphosis, such as cockroaches and bed bugs, the impact is on the last nymphal instar, causing adults to have twisted wings (cockroaches), darkened cuticles, and non-functional reproductive organs.

The Gentrol® product line works on bed bugs and on cockroaches by preventing the nymphs from developing into reproductively functioning adults. Electron microscopy shows that in treated cockroaches and bed bugs, the organs responsible for normal copulation and reproduction do not develop. In the case of male bed bugs, the paramere, or reproductive organ, fails to develop normally. As a result, successful copulation cannot occur.

(Refer to Figures 1 & 2. In insects with complete metamorphosis, such as stored product pests, moths, or drain and fruit flies, the impact occurs in the pupal stage causing death. In certain small flour beetles, there is an impact on the ovaries of the female causing sterility.)

Effects of Gentrol® IGR on bed bugs aid in the control of **resistant populations**.

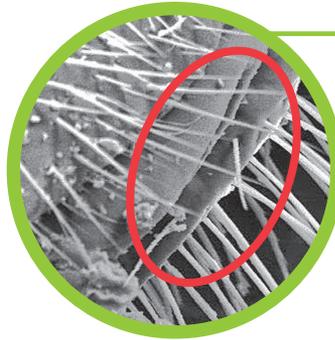
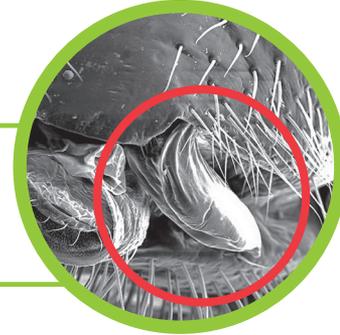


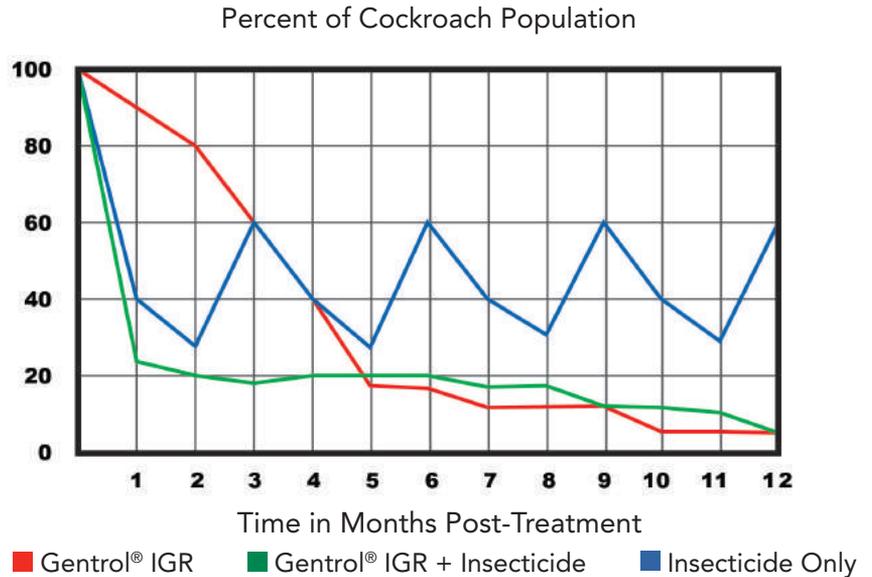
Figure 1: Normal male bed bug reproductive organ (paramere).



Figure 2: Gentrol® product affected male bed bug reproductive organ (paramere). Exposed male bed bug molted into an adult, but with the paramere deformed.



This chart shows the effectiveness of **Gentrol® IGR in combination** with an insecticide on cockroaches.



German cockroaches



drain flies



fruit flies



stored product pests



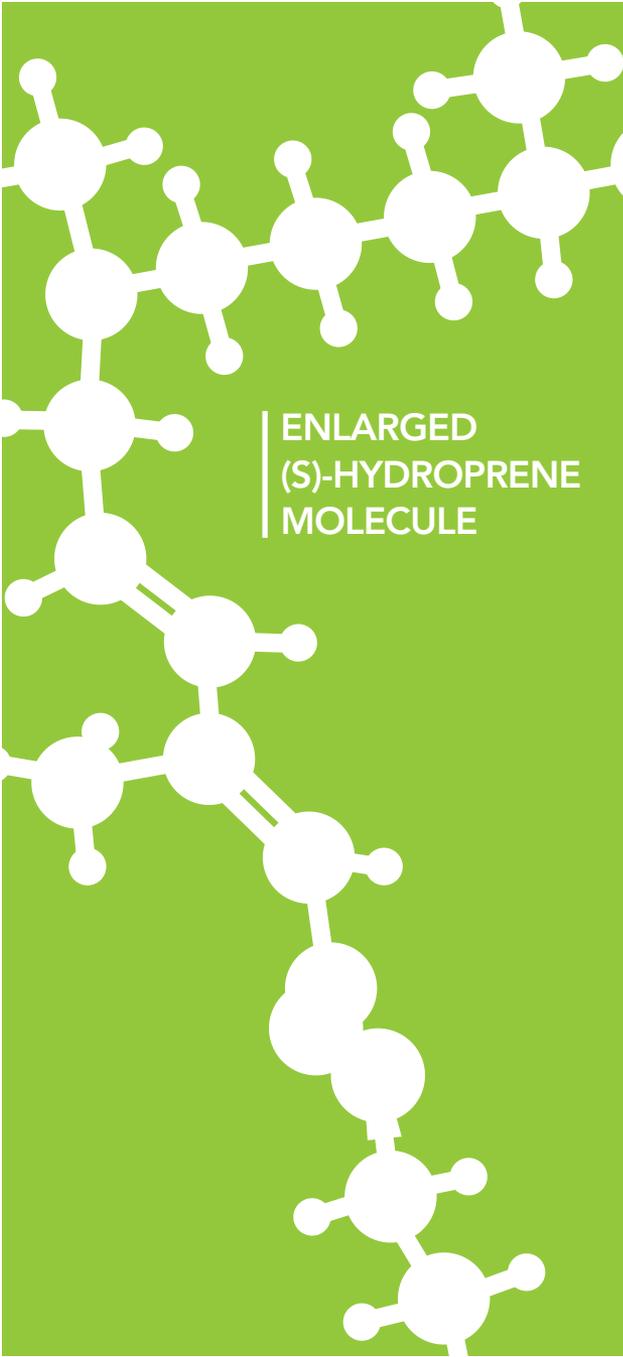
bed bugs

TECHNICAL BULLETIN

TARGET PESTS: COCKROACHES,
STORED PRODUCT PESTS, DRAIN
FLIES, FRUIT FLIES AND BED BUGS

Gentrol® (S)-hydroprene has:

- An excellent toxicity profile, making it low odor and non-repellent. It is ideal for sensitive accounts such as schools, hospitals, nursing homes, day care centers, residential homes and food handling areas.
- (S)-hydroprene: $LD_{50} > 34,560$
- A unique ability to translocate. It is heavier than air and will move down on air currents to penetrate deep into pest harborage areas.
- An affinity for organic matter that is found on the inside of drain pipes. Drain and fruit fly maggots develop, live and feed on food debris and other organic matter found in drain pipes. Since Gentrol® products can be absorbed or ingested, it has excellent control on drain and fruit flies.



ENLARGED
(S)-HYDROPRENE
MOLECULE

The image shows a large, white, stylized ball-and-stick model of the (S)-hydroprene molecule against a green background. The molecule consists of a long, branched hydrocarbon chain with several methyl groups and a terminal methyl group. The structure is shown in a perspective view, with the main chain running diagonally from the top left towards the bottom right. The atoms are represented by white circles of varying sizes, connected by white lines representing bonds. The overall shape is somewhat irregular and complex, typical of a long-chain hydrocarbon with multiple branches.

- Properties to decrease the water content in the bodies of German cockroach nymphs, which encourages them to seek water that is abundant in most gel baits.
- An effect that causes pregnant female cockroaches to seek food. Cockroach females carry an ootheca which contains 30-40 eggs. During pregnancy, a female will usually hide in undisturbed dark harborages and refrain from feeding until the eggs are ready to hatch. She will then drop the egg case in the harborage and proceed to search for food. This search for food increases the chance that the females will come in contact with a bait application. Females feeding on a bait will die and her future nymphs will die with her. This enhancement of baiting will speed up the control process, resulting in an improved baiting program.
- The ability to cause a decrease in the tolerance level that some insects have developed to certain classes of insecticides. It enhances rotational programs, and extends the useful market life of most structural pest insecticides.



German cockroaches



drain flies



fruit flies



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bed bugs



Need information on the go? The Zoëcon Field Guide, available at ZoeconFieldGuide.com, can help you with:

- Dilution calculators
- Product labels
- SDS information
- The full line of pest control products from Zoëcon
- Finding and contacting your local Zoëcon sales representative



Visit ZoeconFieldGuide.com to contact a Zoëcon sales representative to talk more about the Gentrol® family of products.

You can also find more information at Zoecon.com.



For more information, visit our website at Zoecon.com or call 1-800-248-7763

