

Advanced pest-control technology.

Highly concentrated

Starycide SC 480 is a product development and highly concentrated product containing 480 g triflumuron per litre. Only 1-2 ml of Starycide SC 480 are required to make one litre of spray solution, so that a 250 ml pack is sufficient to make up to 250 litres of spray solution. This means less storage space and fewer container disposal problems.



Note

Registered claims may differ from country to country. Always check the label on the locally available product to ensure that the proposed application is approved.

| INSECT | RATE | METHOD OF USE |
|---|------------------------------|---|
| Cockroaches (<i>Blattella germanica</i> , <i>Periplaneta americana</i>) | 10 ml / 10 litre water | Recommended using a knapsack sprayer with cone nozzle. Spray volume of 100ml / m ² on cockroach hiding places. |
| Fleas (<i>Ctenocephalides felis</i>) | 10 ml / 10 litre water | Recommended using a knapsack sprayer with cone nozzle. Spray volume of 50 - 100 ml / m ² on the surface of the carpet, pet sleeping and rest area as well as the area under and by recreational devices. |

| INSECT | RATE | KNAPSACK SPRAYER | SPRAY PUMP MOTOR | ULV |
|---|---------------|---|--|---------------------------------|
| Mosquitoes (<i>Aedes aegypti</i> , <i>Aedes albopictus</i>) | 70 ml/ Ha | 3.5 ml / 10 litre water (Spray volume 200 liter/Ha) | 35 ml / 10 litre water (Spray volume 20 liter/Ha) | 70 ml/ 5 litre water/ Ha |
| Mosquitoes (<i>Anopheles gambiae</i> , <i>Anopheles stephensi</i> , <i>Culex pipiens</i> , <i>Culex quinquefasciatus</i>) | 250 ml/ Ha | 12.5 ml / 10 litre water (Spray volume 200 liter / Ha) | 125 ml / 10 litre water (Spray volume 20 liter / Ha) | 250 ml/ 5 litre water/ Ha |

After treatment, the room should be in a well-ventilated.

| INSECT | RATE 10 LITRE WATER | SPRAY WITH A KNAPSACK SPRAYER | CONDITION |
|--|---------------------|---|---|
| Flies Larvae (<i>Musca domestica</i>) | 10 ml | 10 Litres for 10 square meters | Spray on the wet chicken manure and full of fly larvae. |
| | 4 ml | 10 litres to 1000 litres chicken manure | Spray on an excrement. |
| | 2 ml | 10 litres to 1000 litres chicken manure | Spray on an excrement after fly population decreases. |

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READ THE LABEL BEFORE USE

JIRP. P/1014/609

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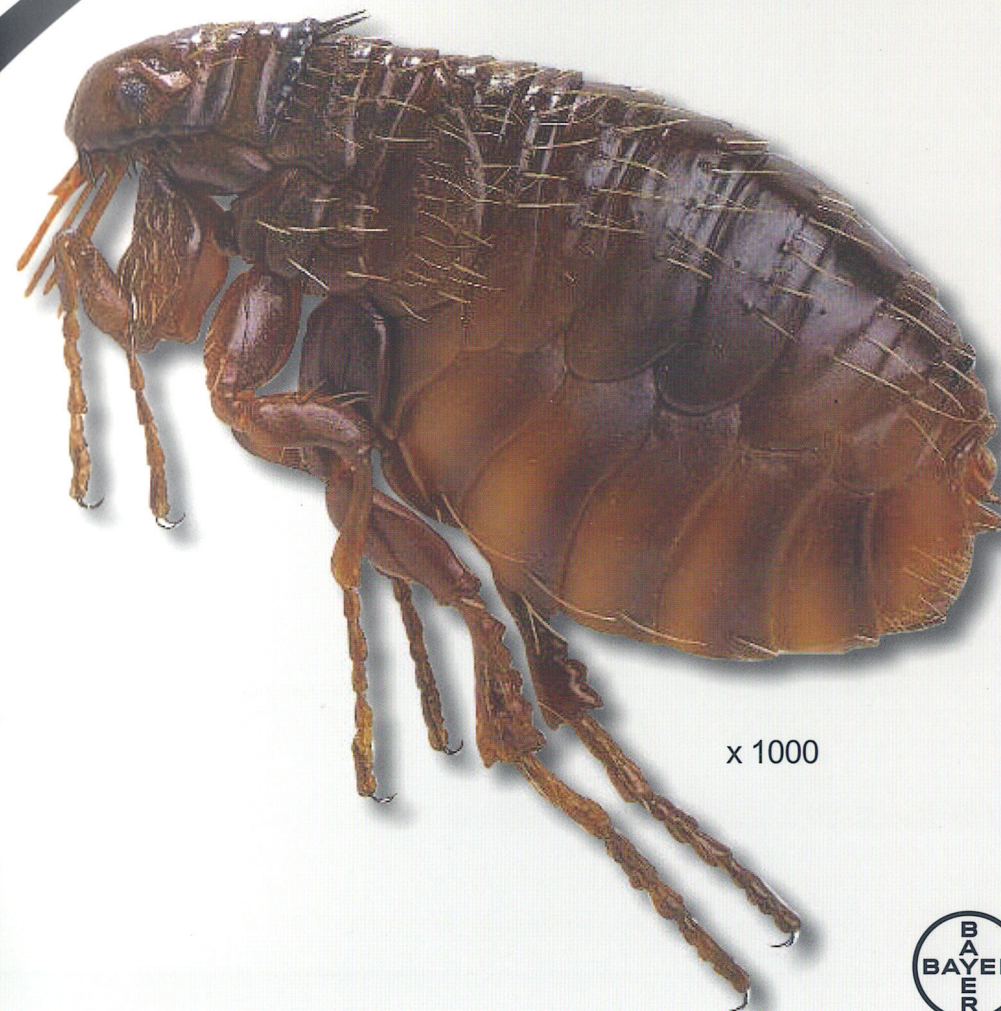


Starycide[®] SC 480

THIS IS A PESTICIDE ADVERTISEMENT

TO BE HANDLED BY TRAINED
PERSONNEL ONLY.

The larvicide with versatile application



x 1000





Starycide[®]
SC 480

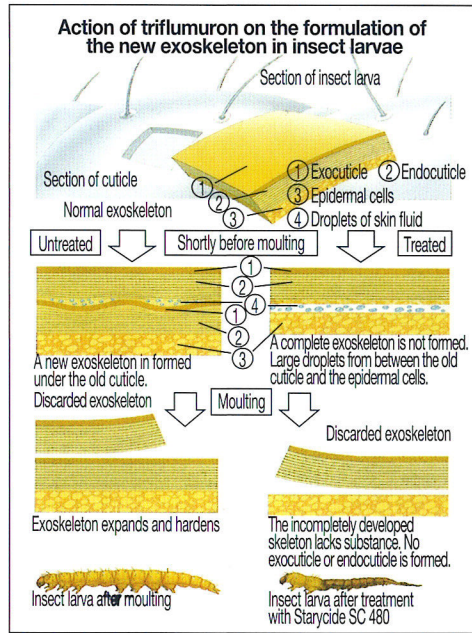
New and highly specific mode of action.

The action of insecticides used in the last 50 years is generally based on their effect on the insect nervous system. These products are many times more toxic to insects than to warm-blooded animals, and they pose little risk when used according to directions. Nevertheless, one of the best ways to control insects pests would be to target some metabolic process which occurs only in insects and not in higher animals. Insects and other invertebrates are unique in that they possess an external skeleton (cuticle) composed of chitin. A thin chitin cuticle also lines the insect's respiratory organs. Chitin is absent in animals and in birds, and it is therefore an ideal target.

Since the cuticle has only limited extensibility, insects must moult regularly when they are growing. To this end new skin is formed underneath the old one, and when it is nearly ready the old outer skin splits and is shed. The new cuticle then hardens, among other things by polymerization of further chitin layers.

Starycide SC 480 is a product development from Bayer AG, first marketed in Germany in 1990, which contains the active ingredient triflumuron. After its absorption by an insect this active ingredient interferes with chitin production or even prevents it completely, leading to moulting disturbances which in turn lead to the insect's death.

For example, during moulting the pests may no longer be able to free themselves from the old skin, or pupae may be formed which still have characteristics of larvae and which are therefore not viable.



Improves Vector Control Measures for mosquitoes

Insecticide resistance is a growing problem that hampers mosquito control in different regions around the world. Nowadays, resistance to the main neurotoxic insecticide classes has spread among several populations of insect disease vectors. Therefore, biological control methods and the use of chemicals with distinct mechanisms of action have been increasingly employed. The utilization of chitin synthesis inhibitors, for example, represents one major current strategy for mosquito chemical control.

Triflumuron is effective against *Ae. aegypti* field population exhibiting different resistance levels to organophosphates and pyrethroids. In such cases, a small number of larvae always remained alive for many days, since the primary action of CSIs is not to induce mortality, but to interfere with development. This development is a very crucial initiative to fight the outbreak of Dengue which highlighted as an important neglected tropical disease in our country.

Starycide SC 480 with its versatile application recommendation enable the vector control unit to use manual sprayer, motorized sprayer and Ultra Low Volume Vehicle mounted machine as control method.



x 300

Especially effective on early larval stages.

Cockroach control

Much is now known about how **Starycide SC 480** works from the results of laboratory studies. Young nymphs are more sensitive than older ones. It has also been found that the frequency of contact with **Starycide SC 480** is more important than the dose or the duration of contact.

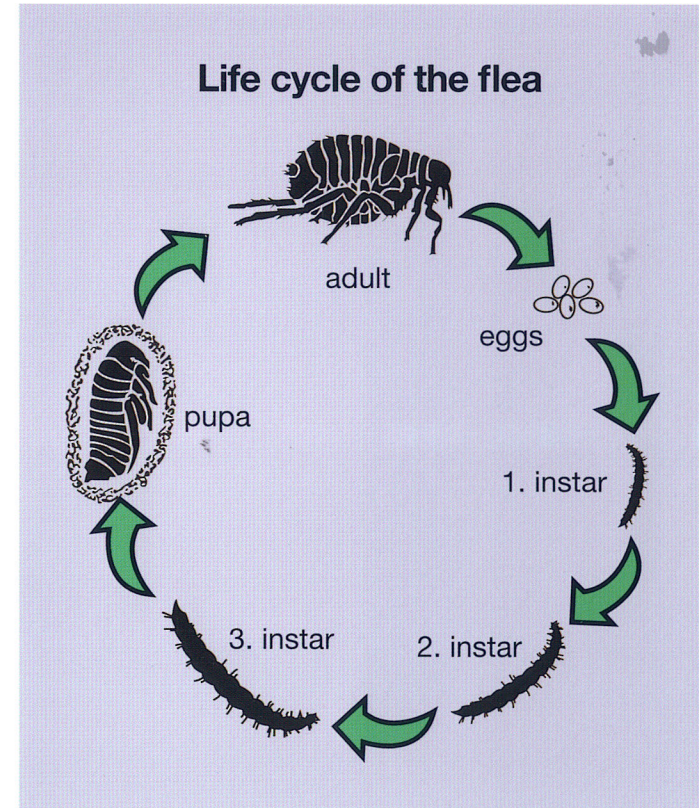
Adult cockroaches are not killed by treatment with triflumuron; egg capsules present at the time of application develop and hatch normally, but the nymphs die within a few weeks. Cockroaches usually die during the moult and are often found with their legs still trapped in the old skin. Nymphs, particularly in very early stages, rarely leave cracks and cavities and it is therefore important to ensure that these areas are fully treated during application. The second and older instars are more likely to move around and absorb a lethal dose by coming into repeated contact with a treated barrier. It is nevertheless advisable to pay attention to treating the cracks, crevices, and cavities.

Starycide SC 480 is efficacious against both German and American cockroaches.

Flea control

Flea infestations are often difficult to control because some products (especially pyrethroids), although effective against adult fleas, have little action on larvae. This means that the problem can reappear within days. **Starycide SC 480** is therefore a useful addition to any flea control treatment, because it targets the larvae and ensures that no follow-up populations develop.

Laboratory trials have confirmed that early flea instars are most sensitive. Adult fleas are not affected, and neither are pupae, so that after an application of **Starycide SC 480** alone it takes some time for the adult flea population



to disappear (about three weeks). This combination ensures that the problem is rapidly resolved and that no new pest populations are established.

The ideal formulation

Starycide SC 480 is formulated as a 480 g per litre suspension concentrate. In this form the active ingredient consists of small solid particles suspended in an aqueous medium. Because the particles are solid, they are not absorbed by porous surfaces. The water carrier ensures that it is also non-flammable, a distinct advantage in storage and disposal.

