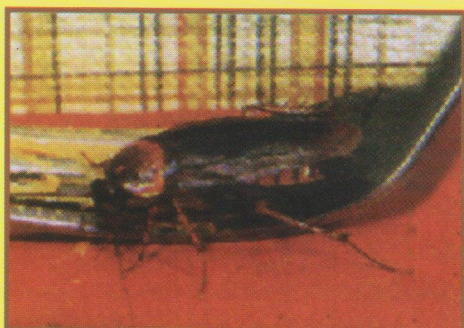


TENOPA SC

TO BE HANDLE BY TRAINED PERSONNEL ONLY.



Periplaneta americana



Blattella germanica

A residual insecticide combination for control of cockroaches.

INTRODUCTION

TENOPA SC is a new insecticide from BASF that demonstrates a fast knockdown, broad-spectrum of control.

TENOPA SC is formulated as a water-based suspension concentrate (SC) which optimizes the activity of both active ingredients in a residual surface spray that does not corrode, or stain, and hence, is particularly suitable for use in domestic and public areas.



FORMULATION

TENOPA SC is available as an SC formulation consisting of 30 g a.i./l of alphacypermethrin and 30 g a.i./l of flufenoxuron. The SC is a particulate formulation suspended in water which provides greatly increased residual control compared to solvent-based formulations, especially when applied to absorbent surfaces such as mortar, brick, or cement. In addition, TENOPA SC does not stain, or corrode and application rates are low that the spray deposit is practically invisible. It may, therefore, be used with confidence, even in sensitive areas such as hospitals, kitchens, restaurants, and food-processing and storage areas¹.



¹ Precautions should be taken to prevent direct exposure to food and animal feedstuff

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TENOPA SC

MODE OF ACTION

TENOPA SC combines the pyrethroid, alphacypermethrin, with the insect growth regulator (IGR), flufenoxuron, to ensure both effective and persistent insecticidal activity at all stages of the pest life cycle.

Alphacypermethrin is a broad-spectrum pyrethroid insecticide that is effective by contact or ingestion. It causes overstimulation of the nerves. This leads to tremoring, fatigue, paralysis, and eventual death of the affected pest insect. Alphacypermethrin is active on the adult and larval stages of insect pests. It also has an ovicidal effect.

Flufenoxuron is a good-performance, residual insecticide developed for public hygiene pest control. It is a chitin synthesis inhibitor which interferes with the formation of new cuticle during the molting process. It also causes a high proportion of eggs laid by adults exposed to this insecticide non-viable.

TENOPA SC

RESISTANCE MANAGEMENT

An important advantage offered by TENOPA SC is the potential for use in resistance management strategies. Significant levels of resistance of *Blattella germanica* to pyrethroids already exist. To manage this resistance, a synthetic pyrethroid/IGR combination (such as TENOPA SC) could be used, particularly where multiple resistance mechanisms occur. The fast-acting pyrethroid would control the majority of the population, resulting in rapid initial control, while the highly resistant remainder of the population which survive the effects of the pyrethroid would be controlled by the IGR (Hemmingway and Small, 1993).

TENOPA SC

RECOMMENDED APPLICATION RATES FOR TENOPA SC

PESTS	LOCATION	RATES	SPRAY VOLUME
		5 litre of water / 100m ²	
German cockroach (<i>Blattella germanica</i>) American cockroach (<i>Periplaneta americana</i>)	Homes, hospitals, hotels, restaurants, kitchens, industrial sites, and food processing plants	25 ml	50 ml / m ²

TENOPA SC

PERFORMANCE

An extensive battery of trials has been performed to evaluate the performance of the two individual active ingredients as well as the combination produces, TENOPA SC. Results from these trials have indicated that TENOPA SC is functionally and economically suited for controlling cockroaches, the hygiene pest with the greatest economic impact, and is effective against the following species: *Blattella germanica*, and *Periplaneta americana*.

Cockroaches are ubiquitous and live in close contact with humans. They are found world-wide - in homes, restaurants, hospitals, and industrial sites - especially in areas concerned with food handling, preparation, and storage.

Cockroaches pose a threat to public health because they carry disease-causing microorganisms responsible for diarrhea, food poisoning, and dysentery. These insects usually feed on decaying matter and waste where they pick up bacteria and fungi. Because they also feed on human food, they are capable of transmitting these bacteria and fungi to the food supplies. Allergens produced by cockroaches can present a serious health threat to people prone to allergies. In addition, cockroaches are a nuisance because they emit an odor that permeates areas where they breed.

Extensive laboratory tests confirm that flufenoxuron is highly active at all nymphal stages and causes a severe reduction in the viability of eggs produced by adult females exposed to the treatment. Flufenoxuron does not control adult cockroaches. Therefore, in typical mixed, cohort population, total pest elimination is low. The most important findings from these trials were that, even though pest control was slow, it increased steadily with time, and levels of control remained high for extended periods. These findings highlighted the value of flufenoxuron as a long-term residual treatment.

TENOPA SC was developed to combine the rapid action and high levels of control of alphacypermethrin with the persistence of flufenoxuron, thus providing an effective and convenient product for hygiene pest control.