



# InsectoSec<sup>®</sup>

Highly effective biocide against the red poultry mite and other crawling insects in poultry farming.

Can still be used as a biocide after September 1, 2015!

# InsectoSec®

Active ingredient: 100% diatomaceous earth

**InsectoSec®** is an acaricide and insecticide for professional users to control crawling insects, especially the red poultry mite. Other crawling pests like ants and fleas are also effectively eliminated.



**InsectoSec®** is an insecticide used for biocidal purposes in poultry farming. It has a strong dehydrating impact on all insects that come into contact with the product. **InsectoSec®** can be used in empty barns but also where animals are present. It works steadily and long-term against red mites. According to current scientific knowledge, resistances are not possible.

Due to a small range of chemical active ingredients in this field and the relatively quick emergence of resistances, the use of silicate powder like **InsectoSec®** has proved its worth.

The active ingredient of **InsectoSec®** (diatomaceous earth) is included in Article 95(1) (list of biocidal active ingredients) of Regulation (EU) No 528/2012. Therefore **InsectoSec®** will continue to be available to poultry farmers as an insecticide to control the red mite.

- ✓ High efficacy
- ✓ No resistances
- ✓ Approved for use in presence of animals
- ✓ Effective long-term protection
- ✓ Easy application
- ✓ Approved for organic farming

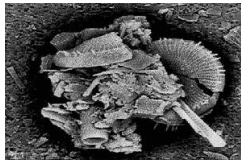


# InsectoSec® – active ingredient and impact on pests

## Active ingredient

100% diatomaceous earth  
(unique content of  $\text{SiO}_2 > 90\%$ )

Diatomaceous earth is a natural mineral extracted from the microscopic shells of fossilized diatoms.

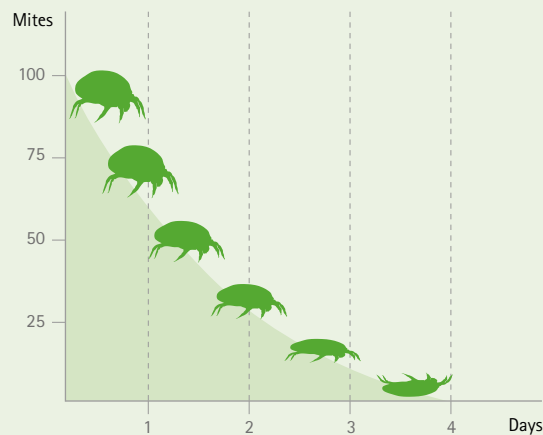


Silicate particle  
1000x magnification

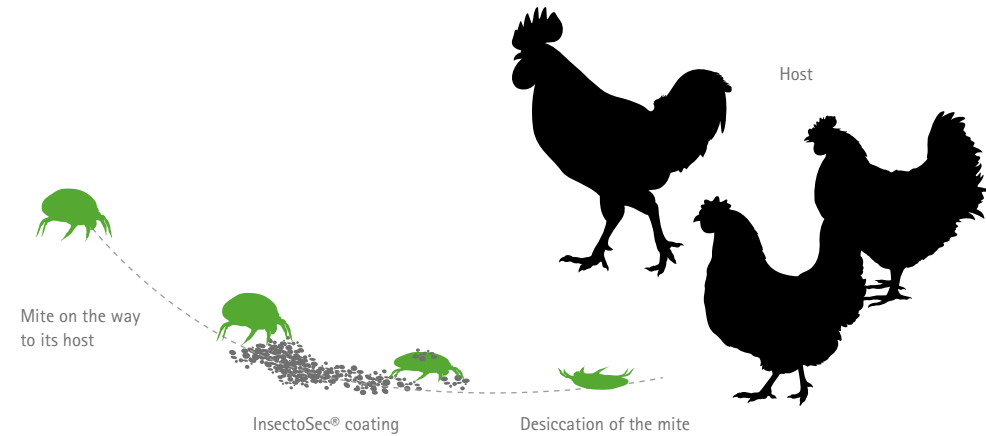
## Mode of action

InsectoSec® controls pests without treating the poultry. It has a strong dehydrating impact on the poultry mite and other crawling insects like ants and fleas. InsectoSec® is applied to the insects' preferred hiding places and travel routes. The fine InsectoSec® powder sticks to the bodies of the insects and kills them within a short time. Up to now, no resistances have been identified.

## Results of a field test of the efficacy of InsectoSec® on soaked, adult red mites carried out in 2011



Mortality after 72 hours  
95 – 100%



## Application

Refuges of the red mite (cracks, crevices, below covers, fittings, etc.) have to be found and coated with a fine white film of InsectoSec®. InsectoSec®-powder can be used dry but also mixed with water (15% solution). With the liquid solution, raising of dust during application is avoided and adhesion is improved. After drying, the treated areas show a fine white film of InsectoSec®.

For spot application of mite nests, the use of InsectoSec®-insect spray is recommended. The mite nest and the area around the nest

have to be sprayed thoroughly because the mites will become active during spraying and run into the treated area where they will be coated with InsectoSec®.

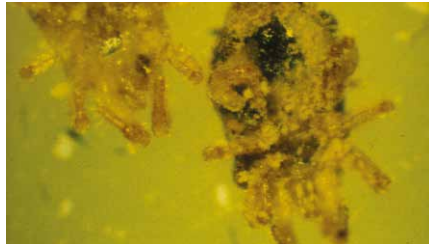
The treated area must be checked after approximately two days. A new application will probably be necessary because in larger mite nests the mites sit on top of each other, so the spray film only hits the top layer of the mites.

## InsectoSec® – strategy for controlling red mites

The red mite (*Dermanyssus gallinae*) is the worldwide enemy number one in poultry farms. Successful control of these parasites is crucial for the health of the animals and a high laying performance.



Red poultry mite – after sucking blood, under a microscope



Red poultry mite – under a microscope

*Dermanyssus gallinae* is a blood-sucking ectoparasite that attacks its prey at night and goes back to its shelter (cracks, crevices, below perches, etc.) when dawn breaks. Although the attack on the laying birds is only brief, a strong infestation can lead to losses and diseases, even death. The layers do not get an uninterrupted rest at night, so they are tired during the day which leads to fewer and also dirty eggs. The blood-sucking mites can carry diseases and a high infestation is also very uncomfortable for the staff.

The adult red mite is grey and has a size of 0.5 – 1 mm. It is red after sucking blood and very easy to recognize. The development time depends very much on the temperature but with optimum conditions it takes only 8 – 9 days. A female red mite lays approximately 50 eggs in two months, which are placed in areas where mites have stayed before. Below 9°C red mites freeze, but they can bear tem-

peratures up to 25°C below zero for up to 18 months. The eggs are also very resistant to cold temperatures.

These characteristics and also the fact that they hide in cracks, crevices, under covers, etc. makes it difficult to fight red mites properly. To control the red mite effectively and long-term, it is necessary to monitor the barn continually and to develop a control strategy using different measures, preferably in consultation with the responsible vet.

We recommend developing an individual control strategy for each barn and following this consistently. Various methods can be combined to avoid resistances.



Typical mite "nest" on a traverse



Typical mite "nest" in a screwed joint

The fight against red mites should always consist of two steps:

### Step 1

Successful control of mites starts in the service period. If there is an infestation of the leaving flock, it is important to start the fight while is warm and the mites are active. This maximises the possibility of killing as many mites as possible in all development stages. As soon as the barn gets cold the mites go deeper and deeper into their hiding places and are therefore more difficult to reach and to control.

As soon as the barn is dry after cleaning and disinfection, a good preventive measure is to coat the whole barn with a thin film of diatomaceous earth. Especially the critical places, like hidden breeding areas, have to be treated carefully.

With this thorough approach and an almost mite free new flock, the barn is protected from infestation for up to three months.

### Step 2

The second step of mite control is the application when the layers are present in the barn. To identify an infestation as early as possible, it is necessary to check the whole barn carefully and continually, especially the critical areas. Mites like to assemble below perches, in u-profiles, under covers, in cracks, etc. Regular checking of these areas is essential and, in case of an infestation, the treatment has to be carried out as soon as possible. An infestation caught early and limited to a certain area can be controlled easily with spot treatments. If the infestation is extensive, the whole barn has to be treated.

### InsectoSec® – powder product

Effective long-term protection against the red poultry mite and other crawling insects

#### Active ingredient

1000 g/kg diatomaceous earth

#### Application

##### Powder

Large areas: Application by a blast gun with compressed air or machines with electrostatic charging.  
Small areas: Application with a powder bottle or hand dusters (Bobby, DustinMizer).

##### Liquid application

Mix with water, recommended concentration 10 – 15%. The solution can be applied by hand or knapsack sprayer.

No waiting period.

#### Areas of application

Chicken barn (empty and where animals are present)

#### Dose of application

Depending on barn:

30 – 50 g InsectoSec® / m<sup>2</sup>

#### Formulation

DP (powder)

#### Packing units

- 200 g powder bottle
- 2 kg cardboard box
- 15 kg paper sack

For dry and liquid application



BauA Reg.Nr.: N-16171

### InsectoSec® – insect spray

Effective long-term protection against the red poultry mite and other crawling insects

#### Active ingredient

7.2% diatomaceous earth

#### Application

Spray distance approx. 30 cm, produce even spray film. In the beginning the coating is slightly moist but it dries very quickly and leaves a fine film of InsectoSec®.

Especially recommended for spot application of hiding places.

No waiting period.

#### Areas of application

Chicken barn (empty and where animals are present)

#### Dose of application

As required

#### Formulation

DP (powder) as aerosol spray

#### Packing units

- 500 ml spray can

No dust during application, very good adhesion



BauA Reg.Nr.: N-57563

## InsectoSec® – tools for application

### Blast gun

For the treatment of large areas

This machine works with compressed air. It sucks InsectoSec® out of a bucket and enables direct treatment of cracks, crevices, etc. The blast gun is especially good for the treatment of large barns and stocks.



### DustinMizer

For the effective application of powders in medium-sized areas

The light and handy duster is driven with a crank handle. An operating distance of several meters can be reached.



### Bobby

For the treatment of small areas

The small hand duster has a powder container of 500 ml. It is good for the spot treatment of hiding places.



## InsectoSec® – additional products



### InsectoSec® for pests on pets

Effective control of crawling pests on pets

For application by non-professional users in and around the house, in barns, kennels, pet houses, etc.



### InsectoSec® for pests in house and garden

Effective control of crawling pests in and around the house

For application by non-professional users in and around the house. InsectoSec® can be used in kitchens, cellars and living spaces, as well as on dry, paved areas outside.


For more information please see  
[www.insectosec.com](http://www.insectosec.com)

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