AXION®

STOP

ONE SHOT* 125ML

*À percussion *A percussione *Druckluft

ANTI PUNAISES DE LIT
ANTI CIMICI DEI LETTI
ANTI BETTWANZEN
ANTI BEDBUGS

SCAN ME

AXION® STOP

4 Semaines**
Action longue durée

INSECTICIDE - INSETTICIDA - INSEKTIZID

Contre les insectes volants et rampants
Contro gli insetti volanti e striscianti
Gegen fliegende und kriechende insekten
Anti-flying and anti-crawling insects

ONE SHOT* 125ML

*À percussion *A percussione *Druckluft

7 649988 268748

Éfficacité 100% - Efficace al 100% 100% Effektiv - 100% Effective

(FR)
- Contre les mouches, moustiques dont l'anophèle (vecteur du paludisme), moustiques tigres, guêpes, mites, frelons asiatiques. Action rapide
- Contre les araignées, fourmis, cafards, puces, punaises de lit. Action rapide

(IT)
- Contro mosche, zanzare (comprese anofeli e zanzare tigre), vespe, tarme e calabroni asiatici. Azione rapida
- Contro ragni, formiche, scarafaggi, pulci e cimici dei letti. Azione rapida

(DE)
- Gegen fliegen, mücken einschliesslich anopheles (malaria-überträger), tigermücken, wespen, motten, asiatische hornissen. Schnelle wirkung
- Gegen spinnen, ameisen, kakerlaken, flöhe, bettwanzen. Schnelle wirkung

(EN)
- Against flies, mosquitoes including anopheles (malaria vector), tiger mosquitoes, wasps, clothes moths, asian hornets. Quick action
- Against spiders, ants, cockroaches, fleas, bedbugs. Fast action

AXION®

STOP

PIÈCE ≤125m3

(FR) Fermer portes et fenêtres. Placer l'aérosol au centre de la pièce sur une table ou une chaise protégée préalablement par du papier ou du carton à au moins un mètre de distance des murs et autres surfaces. Ne pas appliquer sur des surfaces exposées au soleil ou au vent. Ne pas vaporiser sur/vers l'homme et les animaux. Ne pas laisser de personnes, d'animaux et de denrées alimentaires dans la pièce. Couvrir ou enlever la vaisselle, les aquariums, les terrariums et les cages; couper tous les appareils éléctriques en fonctionnement et l'alimentation des pompes d'aquariums avant la vaporisation. Enclencher le diffuseur. Quitter la pièce. Laisser agir au moins **30** minutes et ensuite bien aérer.

ZIMMER ≤125m3

(DE) Schliessen sie türen und fenster. stellen sie das aerosol in der mitte des raumes auf einen zuvor mit papier oder pappe abgedeckten tisch oder stuhl, mindestens einen meter von wänden und anderen oberflächen entfernt. Nicht auf oberflächen anwenden, die direkter sonneneinstrahlung oder wind ausgesetzt sind. nicht auf/an menschen oder tiere sprühen. Lassen sie keine personen, tiere und lebensmittel im raum. Geschirr, aquarien, terrarien und käfige müssen abgedeckt oder entfernt werden; vor der anwendung müssen alle elektrischen geräte und aquarienpumpen ausgeschaltet werden. Stellen sie den diffusor an. Verlassen sie den raum. Mindestens **30** minuten einwirken lassen und danach gut durchlüften.

SALA ≤125m3

(IT) Chiudere porte e finestre. Collocare l'aerosol al centro della stanza, su un tavolo o una sedia, preventivamente protetti con carta o cartone, e ad almeno un metro di distanza da muri e altre superfici. Non applicare su superfici esposte a sole o vento. Non vaporizzare su/verso persone e animali. Non lasciare persone, animali e derrate alimentari dentro la stanza. Coprire o rimuovere stoviglie, acquari, terrari e gabbie per animali; interrompere l'alimentazione delle pompe degli acquari prima di vaporizzare. Attivare il diffusore. Uscire dalla stanza. Lasciar agire per almeno **30** minuti, poi ventilare bene la stanza.

ROOM≤125m3

(EN) Close doors and windows. Place the aerosol in the centre of the room on a table or chair protected beforehand with paper or cardboard at a distance of at least one metre from walls and other surfaces. Do not apply on sun or wind exposed surfaces. Do not spray on/towards humans or animals. Do not leave people, animals or food in the room. Cover or remove dishes, aquariums, terrariums and cages; switch off all electrical appliances and aquarium pumps before spraying. turn on the diffuser. Leave the room. Leave to act for at least **30** minutes then ventilate the room thoroughly.

AXION® STOP

(FR) INSECTICIDE A PERCUSSION CONTRE LES INSECTES VOLANTS ET RAMPANTS

PRÉCAUTIONS D'EMPLOI :

DANGER. Aérosol extrêmement inflammable. récipient sous pression: Peut éclater sous l'effet de la chaleur. Provoque une sévère irritation des yeux. Très toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme. Tenir hors de portée des enfants. En cas de consultation d'un médecin, garder à disposition le récipient ou l'étiquette. Tenir à l'écart de la chaleur, des surfaces chaudes, des étincelles, des flammes nues et de toute autre source d'inflammation. Ne pas fumer. Ne pas vaporiser sur une flamme nue ou sur toute autre source d'ignition. Ne pas perforer, ni brûler, même après usage. Ne pas respirer les aérosols. Se laver les mains soigneusement après manipulation. Porter un équipement de protection des yeux. Éviter le rejet dans l'environnement. En cas de contact avec les yeux : Rincer avec précaution à l'eau pendant plusieurs minutes. Enlever les lentilles de contact si la victime en porte et si elles peuvent être facilement enlevées. Continuer à rincer. Si l'irritation oculaire persiste : Consulter un médecin. Recueillir le produit répandu. Protéger du rayonnement solaire. Ne pas exposer à une température supérieure à 50 °c. Éliminer le contenu/récipient conformément aux prescriptions locales pour l'élimination des déchets ménagers. A utiliser avant le, voir la date indiquée sous le boitier .

INGRÉDIENTS :

GÉNÉRATEUR D'AÉROSOL (AE) - PT18. D-TETRAMETHRIN (N°CAS: 1166-46-7) 0,17% (M/M); CYPHENOTHRIN (N°CAS: 39515-40-7) 0,17% (M/M)

(IT) INSETTICIDA A PERCUSSIONE CONTRO GLI INSETTI VOLANTI E STRISCIANTI

PRECAUZIONI PER L'USO :

PERICOLO. Aerosol altamente infiammabile. Contenitore pressurizzato: Può esplodere se riscaldato. provoca grave irritazione oculare. Molto tossico per gli organismi acquatici con effetti di lunga durata. In caso di consultazione di un medico, tenere a disposizione il contenitore o l'etichetta del prodotto. Tenere fuori dalla portata dei bambini. Tenere lontano da fonti di calore, superfici calde, scintille, fiamme libere o altre fonti di accensione. Non fumare. Non vaporizzare su una fiamma libera o altra fonte di accensione. Non perforare né bruciare, neppure dopo l'uso. non respirare gli aerosol. Lavare accuratamente le mani dopo l'uso. Indossare proteggere gli occhi. Non disperdere nell'ambiente. In caso di contatto con gli occhi: Sciacquare accuratamente per parecchi minuti. Togliere le eventuali lenti a contatto se è agevole farlo. Continuare a sciacquare. Se l'irritazione degli occhi persiste, consultare un medico. raccogliere il materiale fuoriuscito. Proteggere dai raggi solari. Non esporre a temperature superiori a 50°c. Smaltire il prodotto/recipiente in conformità alle disposizioni locali per lo smaltimento dei rifiuti domestici. Usare entro: Vedi data indicata sotto la bomboletta.

INGREDIENTI :

GENERATORE DI AEROSOL (AE) - PT18. D-TETRAMETHRIN (N°CAS: 1166-46-7) 0,17% (M/M); CYPHENOTHRIN (N°CAS: 39515-40-7) 0,17% (M/M)

(DE) INSEKTIZID DRUCKLUFT GEGEN FLIEGENDE UND KRIECHENDE INSEKTEN

VORSICHTSMAßNAHMEN FÜR DEN GEBRAUCH :

GEFAHR. Extrem entzündbares aerosol. Behälter steht unter druck: Kann bei erwärmung bersten. Verursacht schwere augenreizung. Sehr giftig für wasserorganismen mit langfristiger wirkung. Ist ärztlicher rat erforderlich, verpackung oder kennzeichnungsetikett bereithalten. Darf nicht in die hände von kindern gelangen. Von hitze, heissen oberflächen, funken, offenen flammen sowie anderen zündquellenarten fernhalten. Nicht rauchen. Nicht gegen offene flamme oder andere zündquelle sprühen. Nicht durchstechen oder verbrennen, auch nicht nach gebrauch. Aerosol nicht einatmen. Nach gebrauch hände gründlich waschen. Augenschutz tragen. Freisetzung in die umwelt vermeiden. Bei kontakt mit den augen: Einige minuten lang behutsam mit wasser spülen. eventuell vorhandene kontaktlinsen nach möglichkeit entfernen. Weiter spülen. Bei anhaltender augenreizung: Ärztlichen rat einholen/ärztliche hilfe hinzuziehen. Verschüttete mengen aufnehmen. Vor sonnenbestrahlung schützen und nicht temperaturen über 50°c aussetzen. Inhalt/behälter entsprechend den örtlichen vorschriften der entsorgung zuführen. Verfallsdatum: Siehe unter der verpackung

INHALTSSTOFFE:

AEROSOLGENERATOR (AE) – PT18. D-TETRAMETHRIN (N°CAS: 1166-46-7) 0,17% (M/M); CYPHENOTHRIN (N°CAS: 39515-40-7) 0,17% (M/M)

(EN) INSECTICIDE ONE SHOT ANTI-FLYING AND ANTI-CRAWLING INSECTS

PRECAUTION FOR USE:

DANGER. Extremely flammable aerosol. Pressurized container. May burst if heated. Causes serious eye irritation. Very toxic to aquatic life with long lasting effects. If medical advice is needed, have product container or label at hand. Keep out of reach of children. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. do not breathe spray. Wash hands thoroughly after handling. Wear eye protection. Avoid release to the environment. If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Collect spillage. Protect from sunlight. Do not expose to temperature exceeding 50 °c. Dispose of contents/container in accordance with local requirements for domestic waste disposal. To be used before, see the date indicated on the bottom of the can.

INGREDIENTS:

AEROSOL GENERATOR (AE) – PT18. D-TETRAMETHRIN (N°CAS: 1166-46-7) 0,17% (M/M); CYPHENOTHRIN (N°CAS: 39515-40-7) 0,17% (M/M)

(FR) INSECTICIDE A PERCUSSION CONTRE LES INSECTES VOLANTS ET RAMPANTS DANGER.

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STATEMENT

This statement concerns the TEC trial report:

n° 2655a/0321 - SIMULATED-USE TRIAL OF THE EFFICACY OF AN INSECTICIDAL PRODUCT APPLIED AS A SPACE TREATMENT (ONE-SHOT AEROSOL)

In front of the results obtained against adult bed bugs *Cimex lectularius* :

100% knockdown in less than 15 minutes after treatment and no further recoveries (mortality 100% after 24 hours), we can reasonably assume that the product tested, at the rate tested, will also kill the nymphs of bed bugs as the bed bug is an heterometabolic and paurometabolic insect, it means that the nymphs have the same morphology with a lower body weight than the adults and have also the same behavior in the same environment (at the contrary of 'larvae' of other insect really different than the adult).

Bruno Serrano / TEC Director / 23.03.2021

Laboratoire T.E.C.
1, rue Jules Védrines, ZAC Maignon
F – 64600 Anglet

SIMULATED-USE TRIAL OF THE EFFICACY OF AN INSECTICIDAL PRODUCT APPLIED AS A SPACE TREATMENT (ONE-SHOT AEROSOL)

Test product:

One-shot 125 mL (17079598 – H21056)

MARCH 2021
Report n° 2655a/0321

LABORATOIRE T.E.C.
1, rue Jules Védrines, ZAC Maignon
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B.Serrano
T.E.C. Director

PARTICIPANTS TO THE TRIAL

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Marie-Paule MONTAUT
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I, hereby Bruno Serrano, T.E.C. Director certify that the trials presented in this issue were done according to the Good Experiment Practices (G.E.P.) – French Agriculture Ministry agreement 94-021.

Anglet, 22nd March 2021

Warning

The results described in this report are produced by a test on the samples provided which have not suffered any damage related to the reality of use or of storage.
TEC provides test results only on samples received and may in no event be liable regarding finished products in production or sale.

GOOD EXPERIMENT PRACTICE

STUDY TEC N°:	2655a/0321
NUMBER OF PAGES:	40
SPONSOR:	
TEST PRODUCT:	One-shot 125 mL (17079598 – H21056) – Received the 18th February 2021 / Type: aerosol 125 ml, Ref. 17079598 – H21056
FACILITIES:	T.E.C. 1, rue Jules Védrines, ZAC Maignon 64600 Anglet (France)
DATE OF TESTING:	8th to 11th March 2021
REPLICATES:	5 replicates of treatment x 4 replicates intra-treatment
STUDY DIRECTOR:	Bruno Serrano / Agronomist engineer
STUDY ENGINEER:	Adeline D'Angelo / Master Chemist II

QUALITY INSURANCE RESPONSIBLE: Bruno Serrano / Agronomist engineer

METHODOLOGY:

The study procedure is a methodology according to:
C.E.B. 135bis which is part of the Appendix of proposed methodologies in the Guidance on the Biocidal Products Regulation - Volume II Efficacy – Assessment and Evaluation (Parts B&C) – Version 3.0 - April 2018 - ECHA.
The trial was conducted in accordance with the procedures required to conduct Officially Recognised Trials (EOR), from the European directive 91/414/CE-Rule 1107/09, according to the laboratory agreement by the French Ministry of Agriculture.

ARCHIVING: 10 years, hard and electronic copies

There were no circumstances which can have affected the reliability of the data presented in this report.

Bruno Serrano

Date: 22nd March 2021

CONTENTS

SIMULATED-USE TRIAL OF THE EFFICACY OF AN INSECTICIDAL PRODUCT APPLIED AS A SPACE TREATMENT (ONE-SHOT AEROSOL)

1. PURPOSE

The purpose of this study is to assess the efficacy of an insecticide product applied as a space treatment (one-shot aerosol) against flying and crawling insects, and spiders.

The trial procedure was based upon the French registration standard but against the concerned target organisms:

- Method C.E.B. 135bis (First edition: 1989 Revised: May 1996) : "Méthode d'étude de l'efficacité des préparations insecticides et/ou acaricides destinées aux traitements de surface des locaux de stockage, de transformation industrielle et de commercialisation des produits d'origine animale ou végétale"

This issue follows the standard method design and relates any deviations.

2. MATERIALS AND METHOD

2.1. Treatment chamber

The test was conducted in an empty storage chamber.
Dimensions: 6 m long x 7 m wide x 3 m high = 42 m² and 126 m^3.

A biological preliminary test was done 2 days before the trial to check there was no pollution inside that can kill the insects.

Walls and floor were covered by a thin plastic eliminated betxween each replicate to avoid pollution.

Between each replicate, the chamber was open, vigorously ventilated (1200 m3/h) during 24 hours.

There was no ventilation.
The treatment room is kept in controlled climatic conditions:
22°C±1°C / 65%HR±5%RH / light 1200 lux.

2.2. Target organisms

The efficacy of the product was assessed on flying and crawling insects and one species of spider.

FLYING INSECTS:
Musca domestica (common house fly) – adults
Tineola bisselliella (Clothe moth) – adults + larvae
Aedes albopictus (Tiger mosquito) - adults
Culex pipiens (mosquito) - adults
Anopheles gambiae (tropical mosquito) - adults
Vespula germanica (wasp) - adults
Vespa velutina (Asian hornet) - adults

CRAWLING INSECTS:
Blattella germanica (German cockroach) – adults + nymphs
Blatta orientalis (Oriental cockroach) - adults + nymphs
Lasius niger (common black ant) - adults
Ctenocephalides felis (cat flea) - adults + larvae
Cimex lectularius (bed bug) - adults

SPIDERS:
Tegenaria domestica (funnel house spider) - adults

The pests used for the test were either from strains bred in specialised laboratories (INRA-MycSA QUALIS Bordeaux, TEC, SORDALAB, Insect Services GmbH and Pharm'insect). the wasps were retrieved from a wild nest found in 64 area (France).

Colony breeding conditions:
In a controlled climatic conditions chamber kept at 22+/-1°C, 70+/-10% HR, light 700 lux 16 hours + darkness 8 hours.
Insects were bred into cubicle cages of 50 cm side for flying insects and boxes of 25 cm side for crawling insects, and Petri boxes of 9 cm diameter for mites, fed with their usual food+water sources.
The food and water sources are changed twice a week.

Except for wasps, no anesthetic is used to prepare the batches (insects retrieved directly from breeding cages extemporane).

All were sex ratio 50/50 (+/-5%).

AGE AND STAGE OF TARGET ORGANISMS USED FOR THE STUDY

Latin name	Common name	Stage	Age
Musca domestica	common house fly	Adult	4-6 days
Tineola bisselliella	clothe moth	Adult	2-4 days
Tineola bisselliella	clothe moth	Larvae	last instar
Aedes albopictus	mosquito	Adult	2-4 days
Culex pipiens	mosquito	Adult	2–4 days
Anopheles gambiae	mosquito	Adult	2–4 days
Vespula germanica	wasp	Adult	unknown
Vespa velutina	Asian hornet	Adult	unknown
Blattella germanica	German cockroach	Adult	2-4 weeks
Blatta germanica	German cockroach	Nymphs	last instar
Blatta orientalis	Oriental cockroach	Adult	2-4 weeks
Blatta orientalis	Oriental cockroach	Nymphs	last instar
Lasius niger	common black ant	Adult worker	2-4 weeks
Ctenocephalides felis	cat flea	Adult	1-2weeks
Ctenocephalides felis	cat flea	Larvae	L3
Cimex lectularius	bed bug	Adult	2-3 weeks
Tegenaria domestica	house spider	Adult	1-2weeks

Flies:
Per replicate: 100+/-5 mixed sex adults 4 to 6 days old of *Musca domestica* from a laboratory colony breeding since 1986 (origin of the strain: Wellcome).
The breeding conditions are following the requirements of the French standard NF T 72-320.
Density of the target organisms: 100 in 125 m3 test volume x 5 replicates = 500
No anaesthesia was used, the insects were retrieved from the breeding extemporane using a soft "mouth vacuum cleaner".

Mosquitoes:
Per replicate: 100+/-5 two to four days old of *Culex pipiens, Aedes albopictus* and *Anopheles gambiae* from laboratory colony breeding since 1992 and 2006 (origin of the strains: ORSTOM / WHO + SEAMAR).
Colony breeding conditions: in a controlled climatic conditions chamber kept at 28+/-1°C, 75+/-10% HR, light 700 lux 16 hours + darkness 8 hours.
Mosquitoes are bred into cubicle cages of 50 cm side and fed with water and sugar + blood meal for females.
Density of the target organisms: 100 in 125 m3 test volume x 5 replicates = 500
No anaesthesia was used, the insects were retrieved from the breeding extemporane using a soft "mouth vacuum cleaner".

Clothe moths: *Tineola bisselliella,* adults of mixed sex from a specialized institute (Insect Services GmbH), bred in controlled conditions.
The insects were used immediately; there was no acclimatization before the trial.
Density of the target organisms: 100 in 125 m3 test volume x 5 replicates = 500
No anaesthesia was used, the insects were retrieved from the breeding extemporaneous using a soft "mouth vacuum cleaner".

Wasps:
Per replicate: 20 adult workers of *Vespula germanica*, taken from a wild nest the day before the trial.
The insects are not bred in the laboratory but a nest is brought back and some batches of insects are prepared using anesthesia by CO^2.
Density of the target organisms: 20 in 125 m3 test volume x 5 replicates = 100

Asian hornets:
Per replicate: 20 adult workers of *Vespa velutina*, taken from a wild nest the day before the trial.
The insects are not bred in the laboratory but a nest is brought back and some batches of insects are prepared using anesthesia by CO^2.
Density of the target organisms: 20 in 125 m3 test volume x 5 replicates = 100

Cockroaches:
Per replicate: *Blattella germanica* and *Blatta Orientalis* are from a French strain (I.N.A Paris-Grignon – strain INA-TEC 1991). Colony breeding is done according to French method C.E.B N° 159, and susceptibility to the main insecticide groups is checked annually.
Breeding conditions: in a controlled climatic conditions chamber kept at 22+/-1°C, 70+/-10% HR, light 16h dark 8h 700 lux (but the boxes are covered by a black cardboard to avoid too direct light source).
The cockroaches are in plastic metacrylate boxes of 35 cm x 25 cm x 20 cm containing a shelter (pile of egg cardboards), a food source (dog petfood biscuit) and a water source (cotton wick in a test tube filled with water).
The food and water source are changed twice a week.
Adults mixed sex and last instar nymphs (larvae) are used.
Density of the target organisms: 100 of each instar in 125 m3 test volume x 5 replicates = 500 adults + 500 larvae
No anaesthesia was used, the insects were retrieved from the breeding extemporane using a soft "mouth vacuum cleaner".

Ants:
Per replicate: 100 adult workers of *Lasius niger*, from a wild nest acclimatized 2 days in the laboratory according to the standard method CEB 196.
Colony breeding conditions: in a controlled climatic conditions chamber kept at 22+/-1°C, 70+/-10% HR, light 700 lux 16 hours + darkness 8 hours.
Breeding into cubicle cages of 30 cm side, with ground from the wild nest and fed with water and sugar.
Density of the target organisms: 100 in 125 m3 test volume x 5 replicates = 500
No anaesthesia was used, the insects were retrieved from the breeding extemporane using a soft "mouth vacuum cleaner".

Fleas:
Ctenocephalides felis from a specialized institute (University of Bristol), bred in controlled conditions and fed on rabbits only to keep theam alive for the trial duration.
Adults mixed sex and last instar nymphs (larvae) are used.
Density of the target organisms: 100 of each instar in 125 m3 test volume x 5 replicates = 500 adults + 500 larvae

Bed bugs:
Cimex lectularius from a specialized institute (Pharm'Insect - France), bred in controlled conditions and fed on rabbits only to keep theam alive for the trial duration.
No anaesthesia was used, the insects were retrieved from the breeding extemporaneous using a soft "mouth vacuum cleaner".
Adults mixed sex are used.
Density of the target organisms: 100 in 125 m3 test volume x 5 replicates = 500

Spider:
Tegenaria domestica. The spiders were not from laboratory colony breeding but from wild infestations. They are collected with the help of a PCO and brought to the laboratory for anesthesia using CO^2 during the time to expose for the assay.
The spiders were found in Bayonne (64 - France).
CO^2 anaesthesia was used before the trial / recovery time before the trial = 2 hours.
Due to the difficulty to find this kind of arthropod, only 20 were exposed to the treatment per replicate.
Adults mixed sex are used.
Density of the target organisms: 20 in 125 m3 test volume x 5 replicates = 75

There was a 4-hours acclimatization time between the introduction of the target organisms and the treatment.

2.3. Exposition of the target organisms in the test chamber

For each replicate, 4 batches (of 25 individuals, except 20 for spiders, wasps and hornets) are exposed in the test chamber, 2 at 1.80 m height and 2 on the floor, on the test chamber's diagonal but not closer than 50 cm from the walls (see Figure 1.).

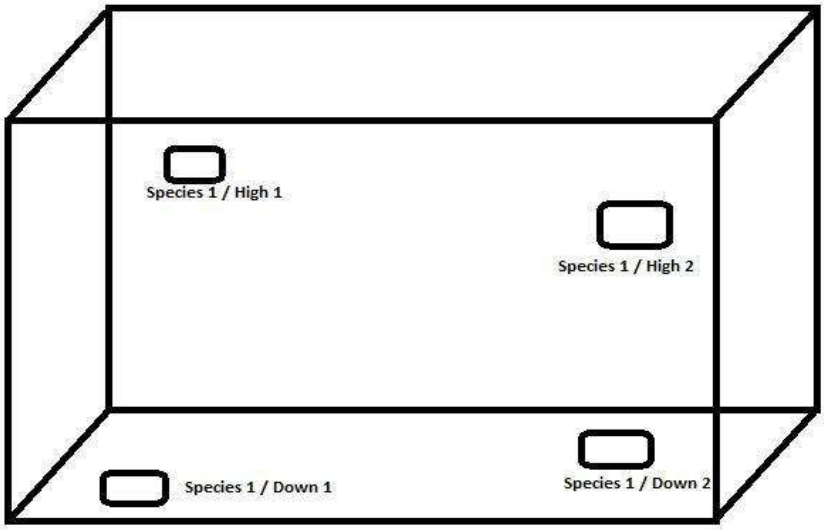

Figure 1: test chamber and locations of the batches of insects/mites exposed to the product.

The trial was a simulated-use trial, it means that the target organisms must have the choice to reach food and water sources without being forced to be in contact with the treatment.

The target organisms are exposed inside plastic metacrylate boxes (30 cm x 20 cm x 15 cm high) closed with a net gauze to avoid escaope but allowing air exchanges and the product to go through.

In each of these boxes, half of the area was filled with a pile of egg cardboards where the food and water sources are placed, acting as a shelter for the insects.

It means that, during the treatment, the insects can be hidden in their shelters as it could be in real conditions of use.

The aim of the trial is to check that the one-shot aerosol is really able to reach the pests inside cracks and crevices in the reality of the consumer.

There was a 4-hours acclimatization time between the introduction of the target organisms and the treatment.

Untreated control:
Same batches of insects/mites were handled in the same conditions except the treatment, to check any unexpected natural mortality and validate or unvalidate the trial data (death rates must be < 10%)

3. TEST PRODUCT, APPLICATION AND DOSAGE

The test product was provided by Mc Bride and received the 18th February 2021:

One-shot 125 mL (17079598 – H21056)

Dose: 1 in 125 m^3

The one-shot aerosol is set at a 40 cm height in the centre of the test chamber.

There was no ventilation after the treatment.

The insects are kept 4 hours in the test chamber = 4 hours of exposure.

5 replicates of treatment are conducted (x 4 replicates of batches of target organisms exposed in each replicate).

4. PROCEDURE AND EFFICACY ASSESSMENTS

After a 4-hours acclimatization time of the target organisms inside the test chamber, the product is activated and a timer is started.

The experimenter is leaving the test chamber and it stays closed during 4 hours = 4 hours of exposure.

15 minutes, 1 hour and 4 hours after treatment, the experimenter takes the batches of organisms and do a assessment of the KNOCKDOWN.
And 24 hours later the MORTALITY is also assessed.

After the 4 hours exposure time, the insects (dead and/or alive) are withdrawn from the test and placed into glass jars with food and water sources, in breeding climatic conditions.

The observations are recording two phenomenons:

- knockdown (KD),
- mortality, lethal effect.

Main insecticides are acting on the nervous system and give successive effects: excitation, uncoordination of moves, paralysis (knock down) and lethargy conducting to death.

The paralysis phase depends on the active ingredient and the dosis, some recoveries can occur after a knockdown effect lasting more or less longer.

- knockdown effect : assessed until 4 hours after teatment
- lethal effect: assessed 24 hours after treatment.

As it is not doable to check if insects are knockdown of actually dead, the insects in the table data will be classified as “dead” or “alive”:

- dead (or knockdown): insects unable to move/fly properly
- alive: insects able to move/fly properly

The plastic layer in the test chamber is eliminated and the chamber is vigorously ventilated (1200 m3/h) during 24 hours.

The assessment of the mortality oif the untreated control batches is done between the replicates as a way to prove the non-pollution of the room.

5. RESULTS

5.1. PRESENTATION

The synthesis of data is given in Tables I and II.

The raw data by species and replicate are given in APPENDIX.

Table I: synthesis of data in KT100 (time of exposure to kill or knockdown 100% of the insects/mites):

Targets	Instar	KT 100	Mortality 4 hours	Mortality 24 hours
Fly	*Adults*	**15 minutes**	**100%**	**100%**
Clothe moth	*Adults*	**15 minutes**	**100%**	**100%**
	Larvae	**15 minutes**	**100%**	**100%**
Mosquito Aedes	*Adults*	**15 minutes**	**100%**	**100%**
Mosquito Anopheles	*Adults*	**15 minutes**	**100%**	**100%**
Mosquito Culex	*Adults*	**15 minutes**	**100%**	**100%**
Wasp	*Adults*	**15 minutes**	**100%**	**100%**
Asian hornet	*Adults*	**15 minutes**	**100%**	**100%**
German cockroach	*Adults*	**15 minutes**	**100%**	**100%**
	Nymphs	**15 minutes**	**100%**	**100%**
Oriental cockroach	*Adults*	**15 minutes**	**100%**	**100%**
	Nymphs	**15 minutes**	**100%**	**100%**
Ant	*Adults*	**15 minutes**	**100%**	**100%**
Flea	*Adults*	**15 minutes**	**100%**	**100%**
	Larvae	**15 minutes**	**100%**	**100%**
Bed bug	*Adults*	**15 minutes**	**100%**	**100%**
Spider	*Adults*	**15 minutes**	**100%**	**100%**

Table II: synthesis of data of the untreated control:

Targets	Instar	Mortality 4 hours	Mortality 24 hours
Fly	*Adults*	**0%**	**0%**
Clothe moth	*Adults*	**0%**	**1%**
	Larvae	**0%**	**0%**
Mosquito Aedes	*Adults*	**0%**	**0%**
Mosquito Anopheles	*Adults*	**0%**	**0%**
Mosquito Culex	*Adults*	**0%**	**0%**
Wasp	*Adults*	**0%**	**0%**
Asian hornet	*Adults*	**0%**	**0%**
German cockroach	*Adults*	**0%**	**0%**
	Nymphs	**0%**	**0%**
Oriental cockroach	*Adults*	**0%**	**0%**
	Nymphs	**0%**	**0%**
Ant	*Adults*	**0%**	**0%**
Flea	*Adults*	**0%**	**0%**
	Larvae	**0%**	**0%**
Bed bug	*Adults*	**0%**	**0%**
Spider	*Adults*	**0%**	**0%**

5.2. COMMENTS

During all the trial, the death rates of the Untreated control batches of insects are lower than 10%, the trial is then validated.

The product gave a fast knockdown and a complete mortality of the pests (no recoveries after 24 hours) in less than 4 hours of exposure in the treated volume.

6. CONCLUSION

In the conditions of this trial, with the product sample provided, the insects strains and methodology used, the product

One-shot 125 mL (17079598 – H21056)

applied as a space treatment at a rate of 1 product of 125 ml to treat 125 m^3, has proved a fast and definitive insecticide efficacy against the following pests:

FLYING INSECTS:
Musca domestica (common house fly) – adults
Tineola bisselliella (Clothe moth) – adults + larvae
Aedes albopictus (Tiger mosquito) - adults
Culex pipiens (mosquito) - adults
Anopheles gambiae (tropical mosquito) - adults
Vespula germanica (wasp) - adults
Vespa velutina (Asian hornet) - adults

CRAWLING INSECTS:
Blattella germanica (German cockroach) – adults + nymphs
Blatta orientalis (Oriental cockroach) - adults + nymphs
Lasius niger (common black ant) - adults
Ctenocephalides felis (cat flea) - adults + larvae
Cimex lectularius (bed bug) - adults

SPIDERS:
Tegenaria domestica (funnel house spider) – adults.

RAW DATA

TEST PRODUCT

KNOCKDOWN AFTER 15 MINUTES OF EXPOSURE

KD = number of organisms knockdowned A = alive %KD % knockdown REP = replicate

Musca domestica

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Tineola bisselliella Adults

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Tineola bisselliella Larvae

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

KNOCKDOWN AFTER 15 MINUTES OF EXPOSURE

KD = number of organisms knockdowned A = alive %KD % knockdown REP = replicate

Vespula germanica

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
H2	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
D1	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
D2	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Aedes albopictus

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Culex pipiens

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Anopheles gambiae

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

KNOCKDOWN AFTER 15 MINUTES OF EXPOSURE

KD = number of organisms knockdowned A = alive %KD % knockdown REP = replicate

Blattella germanica ADULTS

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Blattella germanica NYMPHS

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Blatta orientalis ADULTS

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Blatta orientalis NYMPHS

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

KNOCKDOWN AFTER 15 MINUTES OF EXPOSURE

KD = number of organisms knockdowned A = alive %KD % knockdown REP = replicate

Lasius niger

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Ctenocephalides felis ADULTS

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Ctenocephalides felis LARVAE

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Cimex lectularius

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

KNOCKDOWN AFTER 15 MINUTES OF EXPOSURE

KD = number of organisms knockdowned A = alive %KD % knockdown REP = replicate

Tegenaria domestica

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
H2	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
D1	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
D2	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Vespa velutina

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
H2	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
D1	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
D2	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

KNOCKDOWN AFTER 1 HOUR OF EXPOSURE

KD = number of organisms knockdowned A = alive %KD % knockdown REP = replicate

Musca domestica

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Tineola bisselliella Adults

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Tineola bisselliella
Larvae

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

KNOCKDOWN AFTER 1 HOUR OF EXPOSURE

KD = number of organisms knockdowned A = alive %KD % knockdown REP = replicate

Vespula germanica

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
H2	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
D1	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
D2	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Aedes albopictus

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Culex pipiens

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Anopheles gambiae

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

KNOCKDOWN AFTER 1 HOUR OF EXPOSURE

KD = number of organisms knockdowned A = alive %KD % knockdown REP = replicate

Blattella germanica ADULTS

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Blattella germanica NYMPHS

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Blatta orientalis ADULTS

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Blatta orientalis NYMPHS

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

KNOCKDOWN AFTER 1 HOUR OF EXPOSURE

KD = number of organisms knockdowned A = alive %KD % knockdown REP = replicate

Lasius niger

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Ctenocephalides felis ADULTS

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Ctenocephalides felis LARVAE

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Cimex lectularius

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

KNOCKDOWN AFTER 1 HOUR OF EXPOSURE

KD = number of organisms knockdowned A = alive %KD % knockdown REP = replicate

Tegenaria domestica

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
H2	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
D1	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
D2	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Vespa velutina

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
H2	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
D1	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
D2	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

KNOCKDOWN AFTER 4 HOURS OF EXPOSURE

KD = number of organisms knockdowned A = alive %KD % knockdown REP = replicate

Musca domestica

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Tineola bisselliella Adults

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Tineola bisselliella
Larvae

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

KNOCKDOWN AFTER 4 HOURS OF EXPOSURE

KD = number of organisms knockdowned A = alive %KD % knockdown REP = replicate

Vespula germanica

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
H2	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
D1	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
D2	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Aedes albopictus

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Culex pipiens

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Anopheles gambiae

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

KNOCKDOWN AFTER 4 HOURS OF EXPOSURE

KD = number of organisms knockdowned A = alive %KD % knockdown REP = replicate

Blattella germanica ADULTS

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Blattella germanica NYMPHS

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Blatta orientalis ADULTS

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Blatta orientalis NYMPHS

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

KNOCKDOWN AFTER 4 HOURS OF EXPOSURE

KD = number of organisms knockdowned A = alive %KD % knockdown REP = replicate

Lasius niger

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Ctenocephalides felis ADULTS

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Ctenocephalides felis LARVAE

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Cimex lectularius

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

KNOCKDOWN AFTER 4 HOURS OF EXPOSURE

KD = number of organisms knockdowned A = alive %KD % knockdown REP = replicate

Tegenaria domestica

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
H2	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
D1	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
D2	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Vespa velutina

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
H2	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
D1	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
D2	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

MORTALITY 24 HOURS AFTER EXPOSURE

KD = number of organisms dead A = alive %KD % mortality REP = replicate

Musca domestica

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Tineola bisselliella Adults

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Tineola bisselliella Larvae

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

MORTALITY 24 HOURS AFTER EXPOSURE

KD = number of organisms dead A = alive %KD % mortality REP = replicate

Vespula germanica

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
H2	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
D1	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
D2	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Aedes albopictus

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Culex pipiens

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Anopheles gambiae

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

MORTALITY 24 HOURS AFTER EXPOSURE

KD = number of organisms dead A = alive %KD % mortality REP = replicate

Blattella germanica ADULTS

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Blattella germanica NYMPHS

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Blatta orientalis ADULTS

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Blatta orientalis NYMPHS

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

MORTALITY 24 HOURS AFTER EXPOSURE

KD = number of organisms dead A = alive %KD % mortality REP = replicate

Lasius niger

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Ctenocephalides felis ADULTS

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Ctenocephalides felis LARVAE

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Cimex lectularius

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
H2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D1	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
D2	25	100	0	25	100	0	25	100	0	25	100	0	25	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

MORTALITY 24 HOURS AFTER EXPOSURE

KD = number of organisms dead A = alive %KD % mortality REP = replicate

Tegenaria domestica

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
H2	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
D1	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
D2	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

Vespa velutina

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
H2	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
D1	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
D2	5	100	0	5	100	0	5	100	0	5	100	0	5	100	0	100,0
mean		**100**			**100**			**100**			**100**			**100**		**100**

UNTREATED CONTROL

MORTALITY 24 HOURS AFTER EXPOSURE

KD = number of organisms dead A = alive %KD % mortality REP = replicate

Musca domestica

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
H2	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
D1	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
D2	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
mean		**0**			**0**			**0**			**0**			**0**		**0**

Tineola bisselliella Adults

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
H2	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
D1	1	4	24	0	0	25	0	0	25	1	4	24	0	0	25	1,6
D2	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
mean		**0**			**0**			**0**			**0**			**0**		**0,4**

Tineola bisselliella Larvae

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
H2	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
D1	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
D2	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
mean		**0**			**0**			**0**			**0**			**0**		**0**

MORTALITY 24 HOURS AFTER EXPOSURE

KD = number of organisms dead A = alive %KD % mortality REP = replicate

Vespula germanica

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	0	0	5	0	0	5	0	0	5	0	0	5	0	0	5	0,0
H2	0	0	5	0	0	5	0	0	5	0	0	5	0	0	5	0,0
D1	0	0	5	0	0	5	0	0	5	0	0	5	0	0	5	0,0
D2	0	0	5	0	0	5	0	0	5	0	0	5	0	0	5	0,0
mean		**0**			**0**			**0**			**0**			**0**		**0**

Aedes albopictus

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
H2	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
D1	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
D2	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
mean		**0**			**0**			**0**			**0**			**0**		**0**

Culex pipiens

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
H2	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
D1	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
D2	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
mean		**0**			**0**			**0**			**0**			**0**		**0**

Anopheles gambiae

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
H2	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
D1	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
D2	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
mean		**0**			**0**			**0**			**0**			**0**		**0**

MORTALITY 24 HOURS AFTER EXPOSURE

KD = number of organisms dead A = alive %KD % mortality REP = replicate

Blattella germanica ADULTS

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
H2	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
D1	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
D2	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
mean		**0**			**0**			**0**			**0**			**0**		**0**

Blattella germanica NYMPHS

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
H2	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
D1	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
D2	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
mean		**0**			**0**			**0**			**0**			**0**		**0**

Blatta orientalis ADULTS

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
H2	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
D1	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
D2	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
mean		**0**			**0**			**0**			**0**			**0**		**0**

Blatta orientalis NYMPHS

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
H2	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
D1	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
D2	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
mean		**0**			**0**			**0**			**0**			**0**		**0**

MORTALITY 24 HOURS AFTER EXPOSURE

KD = number of organisms dead A = alive %KD % mortality REP = replicate

Lasius niger

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
H2	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
D1	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
D2	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
mean		**0**			**0**			**0**			**0**			**0**		**0**

Ctenocephalides felis ADULTS

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
H2	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
D1	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
D2	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
mean		**0**			**0**			**0**			**0**			**0**		**0**

Ctenocephalides felis LARVAE

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
H2	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
D1	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
D2	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
mean		**0**			**0**			**0**			**0**			**0**		**0**

Cimex lectularius

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
H2	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
D1	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
D2	0	0	25	0	0	25	0	0	25	0	0	25	0	0	25	0,0
mean		**0**			**0**			**0**			**0**			**0**		**0**

MORTALITY 24 HOURS AFTER EXPOSURE

KD = number of organisms dead A = alive %KD % mortality REP = replicate

Tegenaria domestica

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	0	0	5	0	0	5	0	0	5	0	0	5	0	0	5	0,0
H2	0	0	5	0	0	5	0	0	5	0	0	5	0	0	5	0,0
D1	0	0	5	0	0	5	0	0	5	0	0	5	0	0	5	0,0
D2	0	0	5	0	0	5	0	0	5	0	0	5	0	0	5	0,0
mean		**0**			**0**			**0**			**0**			**0**		**0**

Vespa velutina

	REP 1			REP 2			REP 3			REP 4			REP 5			MEAN
	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	KD	%KD	A	%KD
H1	0	0	5	0	0	5	0	0	5	0	0	5	0	0	5	0,0
H2	0	0	5	0	0	5	0	0	5	0	0	5	0	0	5	0,0
D1	0	0	5	0	0	5	0	0	5	0	0	5	0	0	5	0,0
D2	0	0	5	0	0	5	0	0	5	0	0	5	0	0	5	0,0
mean		**0**			**0**			**0**			**0**			**0**		**0**

ANTI PUNAISES DE LIT ONE SHOT AXION 125ML

777251-31, Produit biocide

Résumé

Communiquant

Swiss Line Services SA
Boulevard D'YVOY 7B
1205 Genève
Suisse

Produit

Désignation principale
ANTI PUNAISES DE LIT ONE SHOT AXION 125ML

CPID
777251-31

Type de produit
Produit biocide

Statut
Qualifié

N° d'autorisation
CHZN6686

Langue de la décision
Français

Nom(s) commercial(s) supplémentaire(s)
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Dernière modification
23.08.2021 08:35

Caractéristique

Catégories d'utilisateurs
Utilisateur privé

Non

Etat physique / type de formulation
Aérosol / emballage sous pression

Substances essentiellement responsables des principaux dangers pour la santé et, le cas échéant, les substances actives

Nom	N° CAS	N° CE	Teneur (...	Fabricant chimi...
2,2-diméthyl-3-(2-méthyl...	39515-40-7	254-484-5	= 0.17 g/100 g	--
d-trans-tétraméthrine	1166-46-7	214-619-0	= 0.17 g/100 g	--

UFI
UHD0-70FF-K008-N7DS

Classification SGH

Catégorie	Phrases
4.1 Dangers pour le milieu aquatique (chronique) - Chronique 1 [Aquatic Chronic 1]	H410
2.3 Aérosols - Catégorie 1 [Aerosol 1]	H229, H222
4.1 Dangers pour le milieu aquatique (aiguë) - Aiguë 1 [Aquatic Acute 1]	H400
3.3 Lésions oculaires graves/irritation oculaire - Catégorie 2 [Eye Irrit. 2]	H319

Etiquetage SGH

Phrases H	Allemand	Anglais	Français	Italien
H222 - Aérosol extrêmement inflammable.				
H229 - Récipient sous pression: peut éclater sous l'effet de la chaleur.				
H319 - Provoque une sévère irritation des yeux.				
H410 - Très toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme.				

Phrases P	Allemand	Anglais	Français	Italien

Phrases P	Allemand	Anglais	Français	Italien
P101 - En cas de consultation d'un médecin, garder à disposition le récipient ou l'étiquette.				
P102 - Tenir hors de portée des enfants.				
P103 - Lire attentivement et bien respecter toutes les instructions.				
P210 - Tenir à l'écart de ... - Ne pas fumer.				
P211 - Ne pas vaporiser sur une flamme nue ou sur toute autre source d'ignition.				
P251 - Récipient sous pression: ne pas perforer, ni brûler, même après usage.				
P264 - Se laver ... soigneusement après manipulation.	Nach Gebrauch Hände gründlich waschen.	Wash hands thoroughly after handling.	Wash hands thoroughly after handling.	Lavare accuratamente le mani dopo l'uso.
P273 - Éviter le rejet dans l'environnement.				

Phrases P	Allemand	Anglais	Français	Italien
P305-351-338 - EN CAS DE CONTACT AVEC LES YEUX: rincer avec précaution à l'eau pendant plusieurs minutes. Enlever les lentilles de contact si la victime en porte et si elles peuvent être facilement enlevées. Continuer à rincer.				
P337-313 - Si l'irritation oculaire persiste: consulter un médecin.				
P391 - Recueillir le produit répandu.				
P410-412 - Protéger du rayonnement solaire. Ne pas exposer à une température supérieure à 50 °C/122 °F.				
P501 - Éliminer le contenu/récipient dans ...	Inhalt/Behälter entsprechend den örtlichen Vorschriften der Entsorgung zuführen	P501: Dispose of contents/container in accordance with local requirements for domestic waste disposal.	Éliminer le contenu/récipient conformément aux prescriptions locales pour l'élimination des déchets ménagers.	Smaltire il prodotto/recipiente in conformità alle disposizioni locali per lo smaltimento dei rifiuti domestici.

Pictogrammes de danger

GHS02

GHS07

GHS09

Mention d'avertissement
Danger

Usages prévus

Types de produit

18-03 Insecticides etc.: Utilisation dans les lieux publics et privés (habitations, restaurants) voisinage d'animaux domestiques
18-07 Insecticides etc.: Pour nébulisation ou pour sprayer avec un nébulisateur ou un apparail programmable

Domaines d'utilisation

A l'intérieur

Méthodes d'utilisation

Aspersion / pulvérisation
Nébulisation

Buts d'utilisation

Curatif

Autre domaine d'utilisation
Aérosol à percussion (dès l'enclenchement le produit se vide complètement)

Interrompre