

CENTRAL LIFE SCIENCES



ZOECON

Professional Products Division

COMING IN 2016...

WORLD'S DEADLIEST

Talk to us about our new campaign to help you communicate the importance of professional mosquito control. Learn how you can generate awareness and increase public support in your community. Check out our website www.Mosquito-Awareness.com for details.

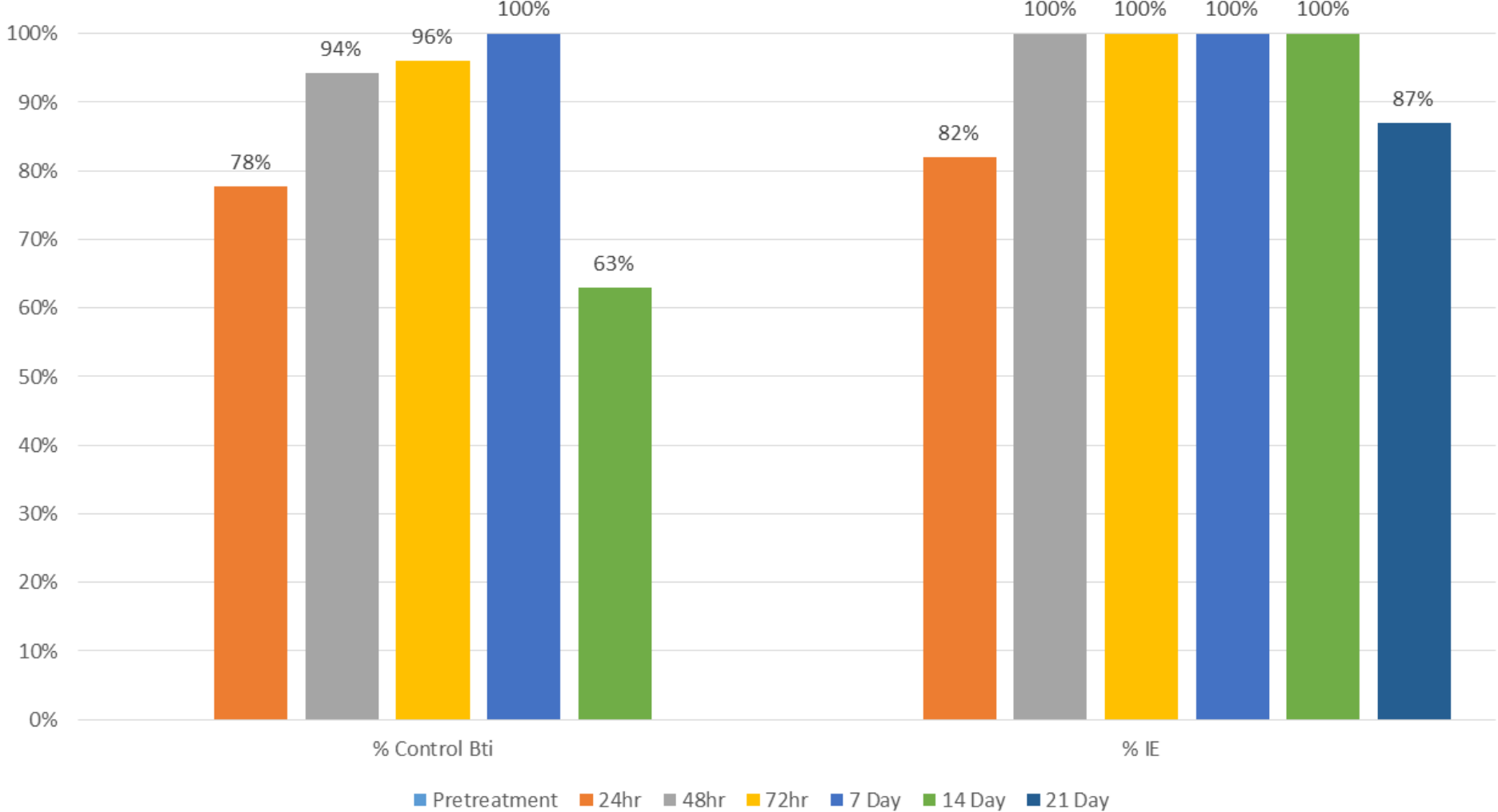


Duplex Granule



Bannock County Trial

Larval Control Vs Inhibition of Emergence



Dual Action

Release



- To be effective, bacteria must be ingested by mosquito larvae in the water column.
- FourStar high density granules sink, then release buoyant particles to the surface and throughout the water column using patented technology.
- SBG, MBG & WSP use Dual Action Flash Release
- CRG uses Dual Action Controlled Release





00200615

Zenivex[®]

E20

This product is a flammable, water-soluble, insect growth regulator for control of roach and cockroach infestations in food processing and distribution facilities. It is a contact insecticide and is effective against the eggs and nymphs of cockroaches and roaches. It is not effective against bed bugs, fleas, or other insects.

- KILLS THE COCKROACH, ROACH, AND BITE FLIES, AND BITING MOSQUITOES, AND BLACK FLIES
- USE AS A SPRAY OR BY AIR AND BRUSH APPLICATION TO CONTROL ADULT COCKROACHES
- CAN BE USED TO CONTROL BITING MOSQUITOES
- CONTROLS ADULT MOSQUITOES THAT MAY CARRY WEST NILE VIRUS, EASTERN EQUINE ENCEPHALITIS, ST. LOUIS ENCEPHALITIS
- CONTROLS BITING MOSQUITOES, NUISANCE AND BITING FLIES
- KILLS, PREVENTS GROWTH OF ADULT MOSQUITOES

KEEP OUT OF REACH OF CHILDREN
CAUTION

NET CONTENTS: 30 GAL (11.364 FL OZ) (113.6 L)

Directions: For use in food processing and distribution facilities. Apply to surfaces where roaches and cockroaches are known to harbor. Apply to surfaces where roaches and cockroaches are known to harbor. Apply to surfaces where roaches and cockroaches are known to harbor.

Precautions: Do not use in areas where food is stored or prepared. Do not use in areas where food is stored or prepared. Do not use in areas where food is stored or prepared.

First Aid: If inhaled, move to fresh air. If on skin, wash with soap and water. If in eyes, flush with water for 15 minutes. If swallowed, do not induce vomiting. Seek medical attention.

Storage: Store in a cool, dry place. Do not store in areas where food is stored or prepared. Do not store in areas where food is stored or prepared.

Disposal: Do not pour down drain. Do not pour down drain. Do not pour down drain.



ALL CLEAR PROGRAM

Cash Back

Or

FREE PRODUCT

ADAPCO
more in controlSM

Clarke

MCP

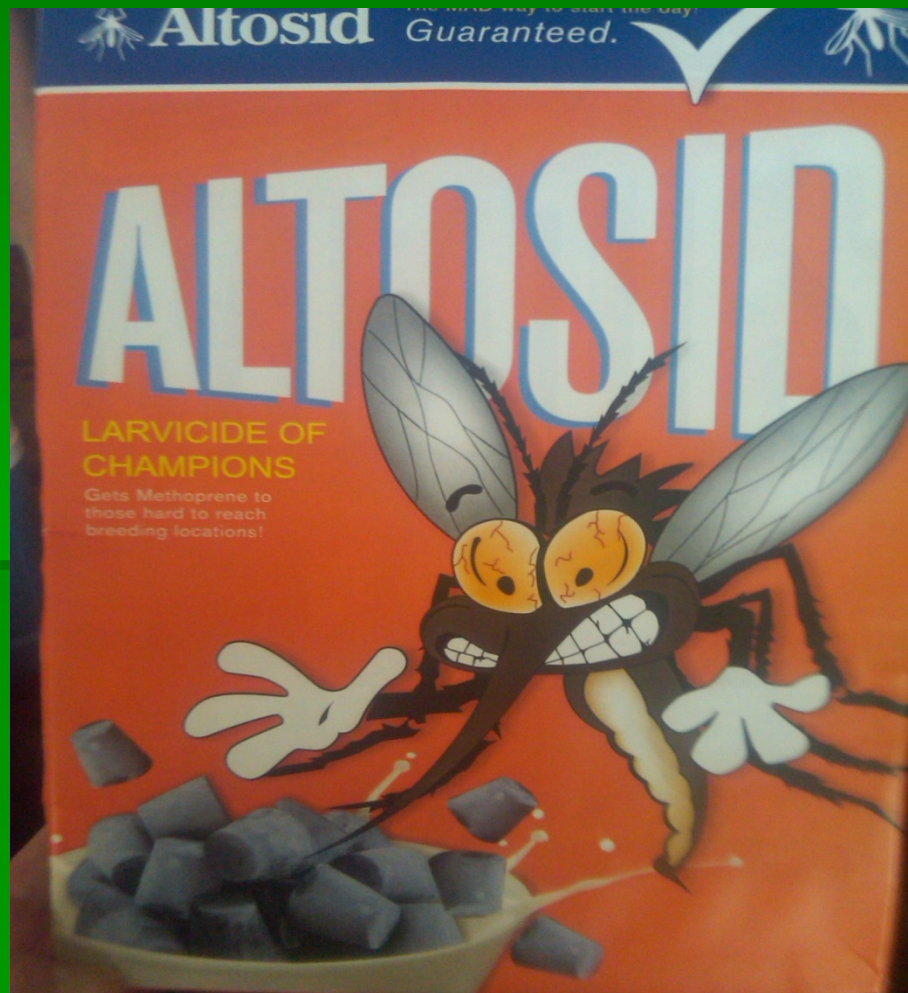


UNIVAR[®]

PP&S

Altosid

“Larvacide of Champions”



AMCA

CENTRAL LIFE SCIENCES
FELLOWSHIP
PROGRAM

Sponsor

FOR

LEGISLATIVE DAY

In

WASHINGTON D.C.

Make your Appointments

With Congressmen
And Senators

NOW !!!!!

Altosid

Equals

Prevention



ALTOSID LARVACIDE FORMULATIONS

- Altosid XR Briquets
- Altosid 30 Day Briquets
- A.L.L. Concentrate (SR20)
- A.L.L. (SR5)
- Altosid Pellets
- Altosid SBG Granules
- Altosid XR-G Granules
- Altosid WSP







New packaging to look forward to.



Other new stuff!!!!



- Formulation of a new XRG product.
- It will be an extended product with a different carrier and length of control.

Resistance Management

Rotate Larvicides

with **ALTOSID**



Aedes albopictus Larvicide Efficacy Trial

Altosid Concentrate, 1.0 fl oz/ac ULV

8/19/2008



Trivia Contest Material



- FourStar Microbial Briquets
- FourStar Single Brood Granules (SBG)
- FourStar Controlled Release Granules (CRG)

Formulation Technology

FourStar Briquets contain the proven actives *Bacillus sphaericus* (*Bsph*) and *Bacillus thuringiensis israelensis* (*Bti*) combined with patented sustained release technology called Dual Action Release.



B.t.i. BRIQUETTE 2015

45 DAY B.t.i. ONLY Briquette

150 DAT B.t.i. ONLY Briquette

B.t.i. BRIQUETTE 2015

45 Day Briquette B.t.i (ONLY)

150 Day Briquette B.t.i. (ONLY)

Introduction of WSP

FOURSTAR® 

WSP

Specimen Label

Water Soluble Pouch

ACTIVE INGREDIENTS:

<i>Bacillus sphaericus</i> 2362, Serotype H565b, strain AML614*	3.0%
<i>Bacillus thuringiensis</i> subspecies <i>israelensis</i> Strain BMP 144 isolates, spores and Insecticidal toxins*	3.0%
OTHER INGREDIENTS:	94.0%
TOTAL:	100.0%

*Equivalent to 30 Bt ITU/mg and 210 Bt ITU/mg, respectively. Note: The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS – CAUTION:

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

ENVIRONMENTAL HAZARDS:

Do not contaminate water when disposing of equipment washwaters or rinsals. Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

FIRST AID

- If in eyes**
- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
 - Remove contact lenses, if present, after the first 5 minutes, and then continue rinsing eyes.
 - Call a poison control center or doctor for treatment advice.

- If on skin**
- Take off contaminated clothing.
 - Rinse skin immediately with plenty of water for 15-20 minutes.
 - Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.

DIRECTIONS FOR USE

It is a violation of Federal law to apply this product in a manner inconsistent with its labeling.

FourStar WSP: Once the foil bag containing Water Soluble Pouches is opened, minimize exposure of the WSP to humidity.

APPLICATION DIRECTIONS

FourStar® WSP is a highly selective multi-brood microbial insecticide effective against mosquito larvae in a variety of aquatic habitats for up to 8 weeks. **FourStar WSP** releases effective levels of *Bacillus sphaericus* and *Bacillus thuringiensis* subspecies *israelensis* to the water surface and throughout the water column. Apply uniformly according to rates listed below by hand. Reapply after 1 to 8 weeks under typical environmental conditions. More frequent applications may be made if monitoring indicates that larval populations have reestablished or weather conditions have rendered initial treatments ineffective.

APPLICATION SITES

FourStar WSP can be applied to all field mosquito development sites that contain aquatic life, fish and plants as well as areas in contact with humans, animals, horses, livestock, pets, birds or wildlife.

Examples of application sites include:

Natural and man-made aquatic sites such as catch basins and storm drains, abandoned swimming pools, unused swimming pools or spas, flooded basements, pool covers, gutters and drains, wheelbarrows, garbage cans and covers, discarded tires, ponds, lagoons, hollow trees and tree holes, urns, rain barrels, livestock watering troughs/ponds/tanks, irrigation ditches, roadside ditches, water gardens, impounded wastewater associated with fruit and vegetable processing, retention, detention and seepage ponds, animal waste lagoons, flood water, standing water, storm water retention areas, birdbaths, fountains, flowerpots and planters, snow melt pools, septic tanks.

Any location where water accumulates and remains standing for periods of time, except treated, finished drinking water for human consumption.

APPLICATION RATES

Apply on basis of surface area of potential mosquito breeding sites by placing one (1) **FourStar WSP** for up to 50 square feet of treatment area. For larger sites, apply 1 additional pouch for each additional 50 square feet of surface area. In areas where late instar larvae predominate, larval populations are high or under conditions where local experience indicates the need for higher rates to achieve extended residual control, double the application rate.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Store in a cool, dry place.

Pesticide Disposal: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

Container Handling: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available, or dispose of the empty outer foil pouch in the trash as long as WSP is unbroken.

NOTICE TO USER

To the extent consistent with applicable law, seller makes no warranty express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with label instructions.



Always read the label before using this product. For product information, call 1-877-264-6655 or visit our web site: www.fourstarincbiois.com



Fourstar Microbial Products LLC, Say Harbor, New York, USA | Made in USA | EPA Reg. No. 85685-3
FourStar is a registered trademark of BDE Microbiols LLC | ©2012 Fourstar | U.S. Patent No. 5,494,600

REV10712

Dual Action

Release



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- SBG, MBG & WSP use Dual Action Flash Release
- CRG uses Dual Action Controlled Release



Unique Mode-of Action: The Octopamine Blocker

- **Octopamine** is a key neurotransmitter found in invertebrates (i.e. insects).
- **Octopamine** is the insect's equivalent to adrenaline. It regulates their heart rate, movement, behavior and metabolism.
- The unique molecular structure in **EcoSMART's product chemistry** that targets and blocks the **octopamine** neurotransmitter receptors in insects.
- Blocking **octopamine** results in a total breakdown of the insect's central nervous system.



A Technological Breakthrough: EcoSMART Botanical Oils

Unique Formulations:

- Derived from a synergistic blend of plant oils.
- Unique combination of plant oils significantly enhances the insecticidal activity.
- Effective against a broad spectrum of pests.
- Provides quick knockdown / kill and residual protection.
- Performance comparable to conventional products



I – C 3

Wintergreen Oil

Rosemary Oil

All Purpose Insecticide

Concentrate (organic)*

Rosemary Oil

Peppermint Oil

NEW PRODUCTS

- PYRONYL (Natural PY)
 - 303 PRENTOX – 5 LB Malathion
 - Crop Spray
 - Oil Concentrate
 - UL - 100
- Perm – X PBO – 8 (SYNERGIST)
 - UL 4 – 4
 - UL 30 – 30
 - UL 31 – 66

MAVRIK® PERIMETER

For Commercial Use Only on Outdoor Ornamental
Plantings, Plantscapes, Trees, Shrubs, Outside
Surfaces and Around Buildings (Perimeter Treatment)

ACTIVE INGREDIENT:

Tau-fluvalinate (CAS# 102851-06-9).....22.3%

OTHER INGREDIENTS:.....77.7%

TOTAL:100.0%

MAVRIK Perimeter is a flowable formulation
containing 2 pounds tau-fluvalinate
per gallon (240g/L)

KEEP OUT OF REACH OF CHILDREN

CAUTION

See Back Panel for Additional
Precautionary Statements and First Aid

Not for use on plants or trees being
grown for sale or other commercial
use, for commercial seed production, for the production of timber or
wood products, or for research purposes. For use only on plants
intended for aesthetic purposes or climatic modification and
being grown in ornamental gardens or parks and grounds.

SHAKE WELL BEFORE USING Net Contents: 8 fl oz (236 ml)
XXXXX



Mavrik Perimeter

- Exceptional Plant Safety
- Virtually Odorless with No Visible Residue
- Labeled for Ornamental Pests & Mosquitoes
- Low Application Cost (\$.60-1.50 / 1000 sq.ft.)
- May be stored overnight after being mixed without sacrificing effectiveness
- Will not harm honeybees once dry

Mavrik will not harm
Honeybees once it has dried





ZenivexTM
E20

Concentrate

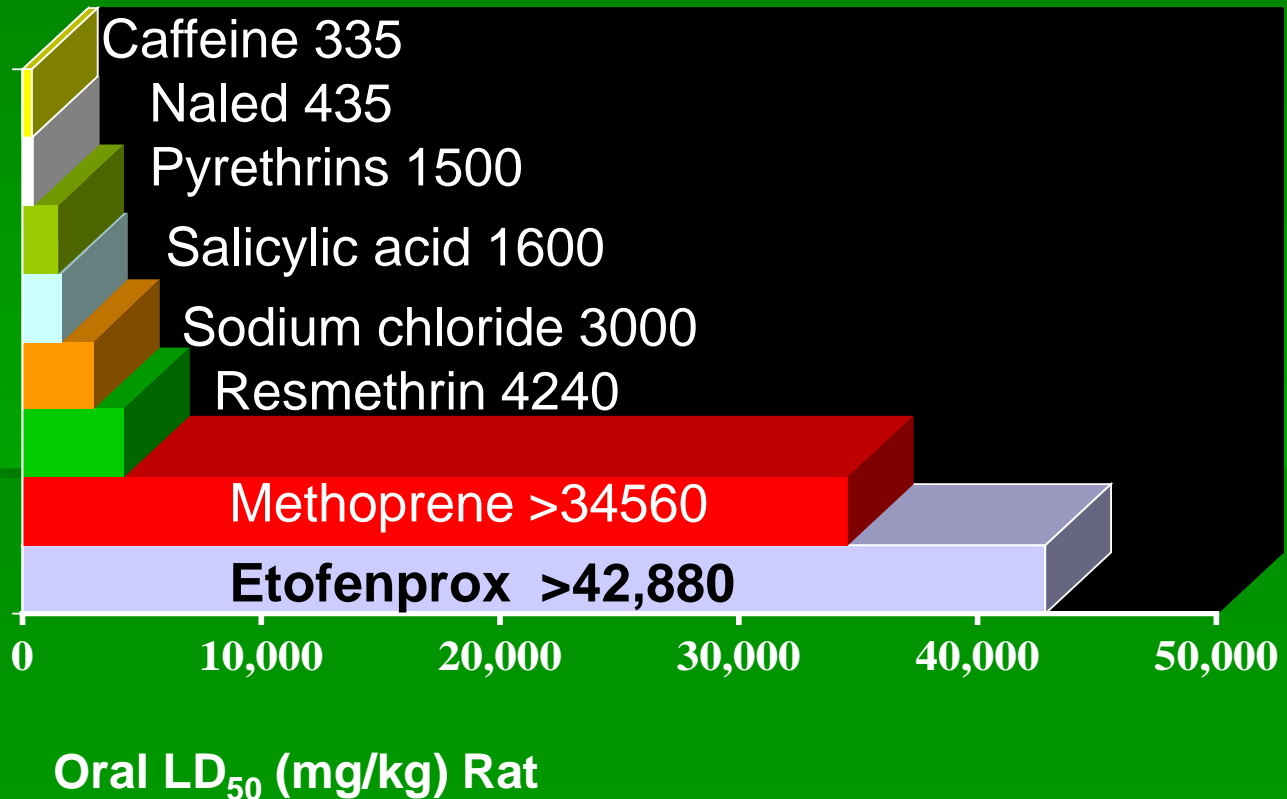
Zenivex[®] E4
RTU

Ready-to-Use

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Always read and follow label directions.

COMPARITIVE ACUTE TOXICITIES

Larger value = Least toxicity



Etofenprox

Conclusion

- Etofenprox is a proven addition to the toolbox for control of adult mosquitoes
 - Excellent efficacy at a range of rates
 - Efficacious on a wide range of mosquito species
- Low toxicity profile
- No set-backs
- Flexible for use in aircraft and ground applications
- Proven performance used neat or diluted
- No PBO synergist required

Zenivex™ Formulation

- 1.5 lb. Etofenprox per gallon
- 20% Etofenprox by weight
- Oil based formulation for ULV: use either undiluted or diluted
- No synergist, that is, no PBO
- Packaged in 2.5 gallon jugs and 30 gallon drums
- Drums will use a closed dispensing system and will be returnable at users option















ALL CLEAR PROGRAM

Cash Back

Or

FREE PRODUCT

ADAPCO
*more in control*SM

Clarke

MCP



UNIVAR[®]

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**We would like to thank you
for your business!**

It is much appreciated !



We Thank You For Your
Business !



MAVRIK® PERIMETER

For Commercial Use Only on Outdoor Ornamental
Plantings, Plantscapes, Trees, Shrubs, Outside
Surfaces and Around Buildings (Perimeter Treatment)

ACTIVE INGREDIENT:

Tau-fluvalinate (CAS# 102851-06-9).....22.3%

OTHER INGREDIENTS:.....77.7%

TOTAL:100.0%

MAVRIK Perimeter is a flowable formulation
containing 2 pounds tau-fluvalinate
per gallon (240g/L)

KEEP OUT OF REACH OF CHILDREN

CAUTION

See Back Panel for Additional
Precautionary Statements and First Aid

Not for use on plants or trees being
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use, for commercial seed production, for the production of timber or
wood products, or for research purposes. For use only on plants
intended for aesthetic purposes or climatic modification and
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Mavrik will not harm
Honeybees once it has dried



I – C 3

Wintergreen Oil

Rosemary Oil

All Purpose Insecticide

Concentrate (organic)*

Rosemary Oil

Peppermint Oil

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ZenivexTM
E20



CENTRAL *Life Sciences*



Introducing a New Molecule to
Mosquito Control

Etofenprox

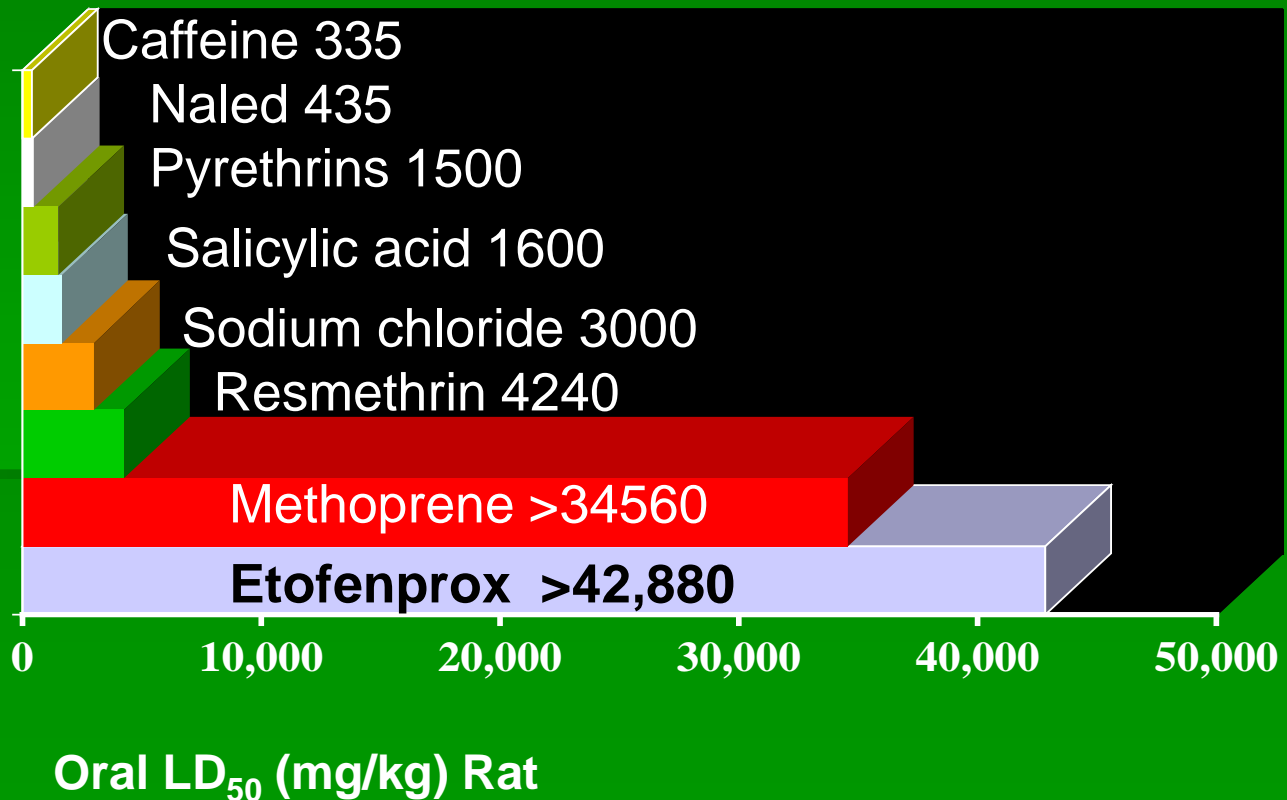
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Zenivex[™]
E20



COMPARITIVE ACUTE TOXICITIES

Larger value = Least toxicity

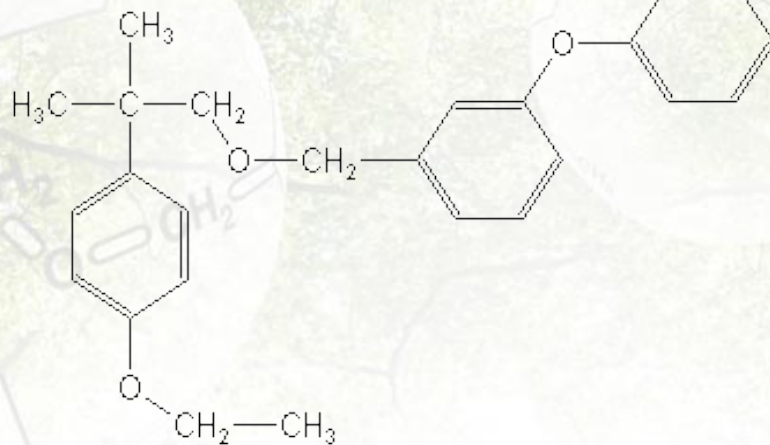


Chemical Classification

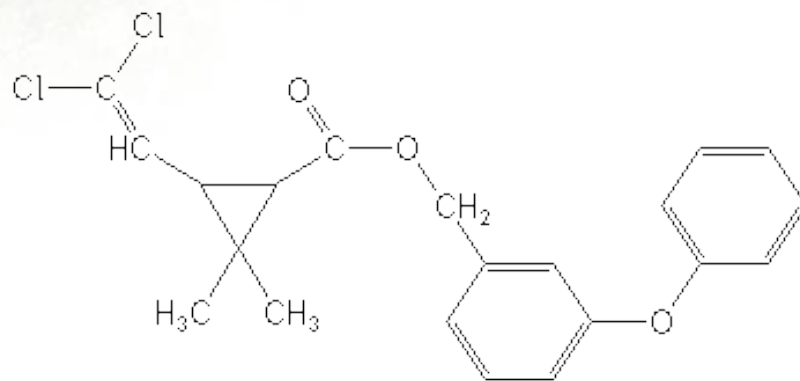
- Etofenprox is classified as an ether pyrethroid
- All commercially available mosquito pyrethroids are ester-pyrethroids
- As an ether pyrethroid it does not fall into current EPA review of traditional pyrethroid chemistries
- Molecule contains only carbon, hydrogen, and oxygen



ETOFENPROX



PERMETHRIN



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Zenivex[™]
E20

Etofenprox Toxicology

- Very low mammalian toxicity
- Low avian toxicity
- As with pyrethroids, mindful of fish and freshwater invertebrates
- EPA classifies it as “Reduced Risk Pesticide” for mosquito control





Introducing...

ZenivexTM E20

Mosquito Adulticide from Central Life Sciences, the makers of Altosid®, a trusted name in mosquito control.

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©2008 Wellmark International.
Always read and follow label directions.

ZenivexTM E20

Zenivex™ Formulation

- 1.5 lb. Etofenprox per gallon
- 20% Etofenprox by weight
- Oil based formulation for ULV: use either undiluted or diluted
- No synergist, that is, no PBO
- Packaged in 2.5 gallon jugs and 30 gallon drums
- Drums will use a closed dispensing system and will be returnable at users option











Zenivex® E4

RTU

Ready to Use

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Zenivex E 4

READY TO USE
FORMULATION



Zenivex™
E20

Concentrate

Zenivex® E4
RTU

Ready-to-Use

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00200615

Zenivex[®] E20

This product is a flammable, water-soluble, insect growth regulator for control of roach and cockroach infestations in food service establishments and other areas where roach and cockroach infestations are a problem. It is not intended for use in residential or commercial buildings.

- KILLS THE COCKROACH, THE ADULT MOSQUITO, NON-BITING MIDGES, AND BLACK FLIES
- CAN BE USED AS A SPRAY BY AIR AND BRUSH APPLICATION TO CONTROL ADULT MOSQUITOES
- CAN BE USED AS A DUST TO CONTROL ADULT MOSQUITOES
- CONTROLS ADULT MOSQUITOES THAT MAY CARRY WEST NILE VIRUS, EASTERN EQUINE ENCEPHALITIS, ST. LOUIS ENCEPHALITIS
- CONTROLS NON-BITING MIDGES, NUISANCE AND BITING FLIES
- KILLS, PREVENTS GROWTH OF ADULT MOSQUITOES

KEEP OUT OF REACH OF CHILDREN
CAUTION

NET CONTENTS: 30 GAL (113.66 L) (35.41 FL OZ) (1000.00 mL)

Directions: For use in food service establishments, restaurants, hotels, and other areas where roach and cockroach infestations are a problem. It is not intended for use in residential or commercial buildings.

Application: Apply as a spray by air and brush application to control adult mosquitoes. Can be used as a dust to control adult mosquitoes. Controls adult mosquitoes that may carry West Nile Virus, Eastern Equine Encephalitis, St. Louis Encephalitis. Controls non-biting midges, nuisance and biting flies. Kills, prevents growth of adult mosquitoes.

Precautions: Do not use in residential or commercial buildings. Do not use in areas where children or pets are present. Do not use in areas where food is prepared or stored. Do not use in areas where food is served. Do not use in areas where food is stored. Do not use in areas where food is prepared or stored. Do not use in areas where food is served. Do not use in areas where food is stored.

First Aid: If inhaled, move to fresh air. If on skin, wash with soap and water. If in eyes, flush with water for 15 minutes. If swallowed, do not induce vomiting. Seek medical attention.

Storage: Store in a cool, dry place. Do not store in areas where children or pets are present. Do not store in areas where food is prepared or stored. Do not store in areas where food is served. Do not store in areas where food is stored.

Disposal: Do not pour down the drain. Do not pour on the ground. Do not burn. Do not incinerate. Do not dump in water. Do not dump in landfills. Do not dump in surface water. Do not dump in subsurface water. Do not dump in air. Do not dump in soil. Do not dump in vegetation. Do not dump in animals. Do not dump in humans. Do not dump in the environment.

Regulatory Information: This product is registered with the EPA under FIFRA. It is classified as a Restricted Use Pesticide. It is not for sale to the general public. It is only for sale to licensed applicators. It is only for sale to those who are trained and certified in the use of this product. It is only for sale to those who are trained and certified in the use of this product.

Manufacturer: Zenivex, Inc. 10000 Zenivex Drive, Houston, TX 77036. Tel: 281-460-1000. Fax: 281-460-1001. Email: info@zenivex.com. Website: www.zenivex.com



Etofenprox

Conclusion

- Etofenprox is a proven addition to the toolbox for control of adult mosquitoes
 - Excellent efficacy at a range of rates
 - Efficacious on a wide range of mosquito species
- Low toxicity profile
- No set-backs
- Flexible for use in aircraft and ground applications
- Proven performance used neat or diluted
- No PBO synergist required



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2013 Price DECREASE

Helping Reduced Budgets







ADAPCO
*more in control*SM

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We Thank You For Your
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**We would like to thank you
for your business!**

It is much appreciated !





Tobacco Smoke Enema (1750s-1810s)

The tobacco enema was used to infuse tobacco smoke into a patient's rectum for various medical purposes, primarily the resuscitation of drowning victims. A rectal tube inserted into the anus was connected to a fumigator and bellows that forced the smoke towards the rectum. The warmth of the smoke was thought to promote respiration, but doubts about the credibility of tobacco enemas led to the popular phrase "blow smoke up one's ass."

We Thank You For Your
Business !









Zenivex E 4

READY TO USE
FORMULATION



00200615

Zenivex[®] E20

This product is a flammable, water-soluble, insect growth regulator for control of roach and cockroach infestations in food processing and distribution facilities. It is a contact insecticide and is effective against the eggs and nymphs of cockroaches and roaches. It is not effective against bed bugs, fleas, and other insects.

- KILLS THE COCKROACH, ROACH, AND BITE FLIES, AND BITING MOSQUITOES, AND BLACK FLIES
- USE AS A SPRAY BY AIR AND BRUSH APPLICATION TO CONTROL ADULT COCKROACHES
- CAN BE USED INSTEAD OF BAIT
- CONTROLS ADULT COCKROACHES THAT MAY CARRY WASTE, BLOOD, AND OTHER CONTAMINANTS, AS WELL AS BITE FLIES
- CONTROLS BITING MOSQUITOES, NUISANCE AND BITING FLIES
- KILLS, PREVENTS GROWTH OF ADULT COCKROACHES

KEEP OUT OF REACH OF CHILDREN
CAUTION

NET CONTENTS: 30 GAL (11.36 L) (35.23 FL OZ) (1.0 L)

Directions: For use in food processing and distribution facilities. Apply to cockroach and roach infestations. For use in food processing and distribution facilities. Apply to cockroach and roach infestations. For use in food processing and distribution facilities. Apply to cockroach and roach infestations.

Precautions: Do not use in areas where food is prepared or stored. Do not use in areas where food is prepared or stored. Do not use in areas where food is prepared or stored. Do not use in areas where food is prepared or stored.

First Aid: If swallowed, drink water. If inhaled, get fresh air. If on skin, wash with soap and water. If in eyes, flush with water for 15 minutes.

Storage: Store in a cool, dry place. Do not store in areas where food is prepared or stored. Do not store in areas where food is prepared or stored. Do not store in areas where food is prepared or stored.

Disposal: Dispose of in accordance with local, state, and federal regulations. Do not dispose in areas where food is prepared or stored. Do not dispose in areas where food is prepared or stored. Do not dispose in areas where food is prepared or stored.

Environmental Precautions: Do not use in areas where food is prepared or stored. Do not use in areas where food is prepared or stored. Do not use in areas where food is prepared or stored.

Other Information: For more information, contact your local distributor. For more information, contact your local distributor. For more information, contact your local distributor.

Product Name	Active Ingredient	Concentration	Formulation	Use
Zenivex E20	Hydroxyflurenol	0.01%	Emulsion	Control of roach and cockroach infestations



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