TO CAUSE A HAZARD IN THE USE, STORAGE OR DISPOSAL OF THIS SUBSTANCE IS AN OFFENCE.

PRECAUTIONS

- 1. Handle with care. Avoid splashing and contact with eyes, nose and mouth.
- 2. Poisonous by swallowing, inhalation and contact with skin.
- 3. WEAR FULL PROTECTIVE CLOTHING i.e. rubber gloves, rubber boots, overalls, hood and respirator when mixing and applying this insecticide.
- 4. On completion of spraying, remove protective clothing and wash hands and face thoroughly with soap and water. Dispose of the wash water in a safe manner.
- 5. KEEP APART FROM FOOD AND FOODSTUFFS.
- 5. DO NOT eat, drink or smoke while applying this insecticide.
- 7. KEEP OUT OF THE REACH OF CHILDREN.
- 8. Dangerous to livestock and domestic pets.
- 9. DO NOT contaminate drinking pools, dams, rivers, waterways and other water supplies.
- 10. Store in the original container and KEEP UNDER LOCK AND KEY.

EMPTY CONTAINER DISPOSAL:

Triple-rinse empty containers in the following manner: Invert the empty container over the spray or mixing tank and allow to drain for at least 30 seconds after the flow has slowed down to a drip. Thereafter, rinse the container three times with a volume of water equal to a third of that of the container. Add the rinsings to the contents of the spray tank before destroying the empty container by perforating and flattening. **DO NOT** use for any other purpose. If possible, offer for recycling.

CLEANING OF APPLICATION EQUIPMENT:

After use, ensure all traces of Deltamethrin 10EC are removed. Use the following method:

- a) Drain and rinse tank, sprayboom and hoses with clean water for at least 10 minutes (rinse at least 3 times).
- b) Fill tank with clean water and add to it 1 litre of household bleach (Sodium hypochlorite) (5%) or 1.5 litres of household bleach (3.5%) per 200 litres of water. Rinse hoses and spray-boom and leave in tank for 15 minutes whilst agitating. Drain through nozzle outlets.
- c) Repeat step (b) and after that, rinse thoroughly with water. Dispose of the wash water safely in a collection sump where it will not contaminate crops, grazing, rivers, dams and boreholes.

SYMPTOMS OF HUMAN POISONING:

May cause burning, itching or tingling sensations of the skin and these readily disappear within 24 hours after exposure. Inhalation causes nasal discharge, scratchy throat, as well as ataxia, convulsions and tremors. Systemic symptoms include eye irritation, dizziness, headache, nausea, listlessness and vomiting.

FIRST AID TREATMENT:

Remove patient from source of poisoning and keep him/her quiet and reassured.

Eyes: Flush eyes with clean water for at least 15 minutes. If irritation occurs and persists, obtain medical attention.

Skin: Remove contaminated clothing and rinse contaminated body area thoroughly with plenty of soap and cold water. **DO NOT** rub skin. Apply olive oil to affected areas for prompt relief. Get medical attention if irritation occurs and persists.

Inhalation: Move to fresh air. If breathing difficulty or irritation occurs and persists, obtain medical attention.

Ingestion: DO NOT induce vomiting. Have the mouth of patient rinsed with water. **DO NOT** give anything by month to an unconscious person. Get a medical doctor.

NOTE TO PHYSICIAN:

Antidote is not available. Treat symptomatically and supportively. In case of ingestion, consider gastric lavage with water or $5\,\%$ sodium bicarbonate solution. Convulsions should be treated with anti-convulsants. Vomiting may be induced by using Ipecac Syrup.

WARRANTY: Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not guarantee that it will be effective under all conditions. The activity and effect thereof may be affected by factors such as abnormal soil, climatic and storage conditions, quality of dilution water, compatibility with other substances not indicated on the label and the occurrence of resistance of the pests against the remedy as well as by the method, time and accuracy of application. The registration holder furthermore does not accept responsibility for damage to crops, vegetation, the environment or harm to man or animals or for lack of performance of the remedy concerned due to failure by the user to follow label instructions, or to the occurrence of conditions which could not have been foreseen in terms of the registration. Consult the supplier in the event of any uncertainty.

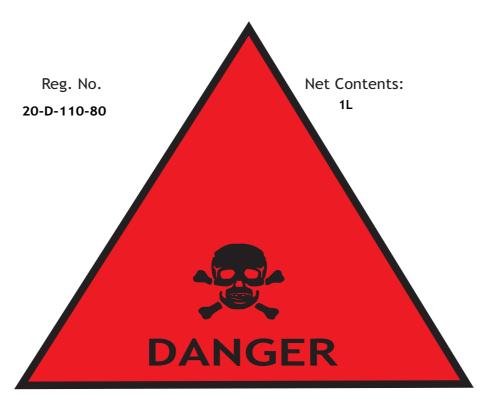
Shelf life: Two years from the date of manufacture if kept in the original unopened container under constant cool and dry conditions.

Batch number:

Date of manufacture:

Date of manufacture:

DELTAMETHRIN 10EC INSECTICIDE



DANGEROUS POISON

Composition......Mass/Volume
Deltamethrin......100g/l

Chemical group: Synthetic Pyrethroid

AN EMULSIFIABLE CONCENTRATE STOMACH AND CONTACT INSECTICIDE FOR THE CONTROL OF AMERICAN, RED AND SPINY BOLLWORM AS WELL AS STAINERS IN COTTON, CUTWORMS IN ALL CROPS, AND AMERICAN BOLLWORM IN GRAIN SORGHUM, GROUNDNUTS, BEANS, PEAS, MAIZE, TOMATOES, AND WHEAT AS WELL AS OTHER CROPS AS LISTED.

Registered and Distributed by:

Optimum Agro (Pvt) Ltd 12 Highfiled Road, Southerton, Harare. Phone number:0242774725

E-mail: sales@optiagro.co.zw



DIRECTIONS FOR USE: USE ONLY AS DIRECTED. Mixing Instructions:

- Half-fill the spray tank with clean water.
- Measure out the required quantity of Deltamethrin 10EC and premix this with at least 10 litres of clean water. If any other product e.g. light mineral spray oil is to be added to the tank-mixture, the required volume of that product must be premixed in similar fashion.
- Agitate the water in the spray tank and add the premixed product(s) to the tank.
- Fill the spray tank with water to the required volume, while maintaining agitation to ensure thorough mixing.
- Maintain agitation during spraying.
- Use the prepared mixture immediately. DO NOT allow to stand overnight.

Application and Equipment

Deltamethrin10EC is a contact spray. Thorough, even coverage is essential. Residual control of Deltamethrin 10EC may be reduced if heavy rainfall is received within 48 hours of application. Deltamethrin10EC can be applied using water as a carrier, and from aircraft can also be applied ULV when in combination with a compatible ULV insecticide and/or oil as bulking agent.

Ground Spray

Standard low volume boom or high volume equipment may be used.

Aircraft

Applied with water - Deltamethrin 10EC may be applied by aircraft using water as a carrier. Water volumes of 20 to 30 L/ha have given satisfactory results.

Applied ULV - Deltamethrin 10EC may also be used without dilution, in mixture with some ULV products, as listed under compatible ULV insecticide mixture partner and/or compatible oil as the bulking agent. **DO NOT** add water - use directly from the container.

Please note:

Berry vegetables (Gooseberries, rosella), Cole crops (cabbage, cauliflower, Brussels sprouts, broccoli) and Tomatoes should not be treated by ULV application.

For ULV application, Deltamethrin 10EC must only be applied by aircraft fitted with accurately calibrated ULV equipment e.g. Micronair AU5000 atomisers. To minimise drift, it is essential to produce a suitable spray droplet diameter (volume mean diameter) by controlling the rotational speed of the atomisers. It is recommended that the application parameters in terms of plane speed and blade angle settings are adjusted to deliver a maximum rotational speed of 3000 rpm and a resultant droplet diameter of approximately 100 microns. Rotational speed of the atomisers can be measured by the fitment and maintenance of transducers. Thorough coverage is essential.

Warning:

Deltamethrin 10EC may be mixed with some organophosphate insecticides for additional insect control. Organophosphate insecticides can cause phytotoxicity, which may be exaggerated with multiple applications. The addition of Deltamethrin 10EC to organophosphate insecticides does not affect the degree of phytotoxicity.

Warning against resistance:

Resistance of American bollworm (*Helicoverpa armigera*) to synthetic pyrethroids has been confirmed. COTTON: Synthetic pyrethroids must **only** be applied to cotton during the period 1 January to 28 February. ALL OTHER CROPS: **DO NOT** re-spray more than two applications per growing season. If a pyrethroid gives poor performance, **DO NOT** re-spray with any synthetic pyrethroid, even at a corrective dosage rate. Use a product from a different chemical group. Integrate other control methods (chemical, cultural, biological) into insect control programmes.

Pre-harvest intervals:

The following withholding periods, minimum time between last application and harvest or grazing, are required:

Beans and Groundnuts: 7 days

Lettuce: 3 days Paprika: 7 days

Cotton and Grain sorghum: 28 days

Peas: 3 days

Grass pastures (Lucerne and Lupins): 3 days

Maize and Sweet corn: 14 days

Tomatoes: 2 days Wheat: 21 days

Compatibility:

Deltamethrin 10EC is compatible with a wide range of pesticides. However, since it is not possible for the registration holder of Deltamethrin 10EC to test all possible combinations, the onus lies with the user to carry out a compatibility test in the event of any uncertainty.

APPLICATION RATES:

CROP	PEST	DOSAGE RATE (100l of water/ha unless stated)	APPLICATION REMARKS					
All crops	Cutworms	Ground application: 40ml/ha	Apply pre and / early post emergence.					
			Overall treatment: Apply in approximately 150 litres of water/ha.					
			Band treatment: Apply in a band at least 30 cm wide over the row. A rate of 40ml in approximately 300 litres of water should be applied per treated ha.					
		Aerial application: 40ml/ha	Apply in Aerial application: at least 30l of water/ha.					
Lettuce	American Bollworm and Cutworms attacking heads	Ground application: 60ml/ha	Apply as soon as pests infestation is noticed. Repeat if necessary. Alternate with an insecticide with a different mode of action if problem persists or resurfaces.					
Paprika	American Bollworm	Ground application: 60ml/ha	Apply at the first signs of bollworm infestation. Use 100l of water/ha to ensure good coverage and thorough wetting of flowers and fruit.					
Maize and Sweet corn	American Bollworm (Cobworm)	Aerial application: 60ml/ha	Apply if eggs are present. Thereafter, scout weekly and re-spray if necessary. Alternate with an insecticide with a different mode of action if problem persists or resurfaces. Ensure good coverage of the upper third of the plants. Apply in at least 30 litres of water /ha.					
Maize, Sorghum, Wheat, and Grass pastures	African armyworm	Ground application: 60ml/ha	Apply when threat of significant damage to crops and pasture is imminent and preferably when it is evident that no new hatchlings are taking place. Will control all larval stages. Apply in 100l of water.					
Tomatoes	American Bollworm	High volume application 3.25ml/100l of water (2l spray-mixture/10 cm plant height/100m row length)	Apply as soon as plants have started flowering or whenever bollworms are expected. For best results, larvae should not exceed 10 mm in length. Apply as a full cover spray in 100l of water/ha. Repeat at 7 to 10-day intervals. Alternate with an insecticide with a different mode of action if problem persists or resurfaces.					
Beans, Groundnuts and Peas	American Bollworm	Ground application: 60 ml/ha	Apply as soon as plants have started flowering or whenever bollworms are expected. Scout fields weekly from flowering, using a sample size of 30 plants per 15 ha (2 plants per ha). Start spraying when 10% of the plants are infested. For best results, larvae should not exceed 10 mm in length. Apply in 200-500l of water/ha. Apply in at least 30l of water/ha					
		Aerial application: 60 ml/ha						
Cotton	Heliothis bollworm, Red bollworm, Spiny bollworm, Stainers, Jassids and Leaf-eating caterpillars Cutworm	LANCE: 0,4 - 0,9 m tall- 33 ml/ha Over 0.9 m tall -50 ml/ha NB. One knapsack sprayer with a capacity of 15 litres requires 5 ml of Deltamethrin 10EC. Tail-boom: 0,4 - 0,9 m tall- 33 ml/ha Over 0.9 m tall- 50 ml/ha. Mist Blower: 0,4 - 0,9 m tall- 33 ml/ha Over 0.9 m tall- 33 ml/ha Over 0.9 m tall- 50 ml/ha. Aerial: 0,4 - 0,9 m tall- 33 ml/ha Over 0.9 m tall- 50 ml/ha. ULV: Mix 10 ml Deltamethrin 10EC with 640 ml water and 350 ml molasses and apply as shown under remarks. Mist Blower: 0,4 - 0,9 m tall- 33 ml/ha Over 0.9 m tall- 33 ml/ha Over 0.9 m tall- 50 ml/ha. Aerial:	APPLICATION methods:					
Cotton			CROP HEIGHT Recommended spray volumes					
			CROT TIEIGITI	Lance	Tail-Boom	U.L.V	Mist-blower	Aerial
			Plants 0.4-0.9 m	65l	100l	3.3l	65l	10l
			Plants over 0.9m	100l	150l	5l	100l	15l
			NOTE: Sprays are dependent on weekly scouting results. NOTE: PYRETHROID WINDOW PERIOD: Deltamethrin 10EC is only recommended for use between following periods:					
			Area Start End			End	nd	
			South East lowveld 25th December				End of February	
			Middle veld and else	ewhere	1st February		End of season	
		0,4 - 0,9 m tall- 33 ml/ha Over 0.9 m tall -50 ml/ha						