

RESTRICTED USE AGRICULTURAL REMEDY
THIS REMEDY IS RESTRICTED DUE TO ACUTE TOXICITY. THIS REMEDY MAY ONLY BE SOLD TO AND USED BY A REGISTERED PEST CONTROL OPERATOR, OR BY SOMEONE UNDER THE SUPERVISION OF A REGISTERED PEST CONTROL OPERATOR, AND ONLY FOR THOSE USES COVERED BY THE PEST CONTROL OPERATOR'S SCOPE OF REGISTRATION, AND ONLY AS DIRECTED ON THIS LABEL.

Abba 18 EC

Reg. No.: L 10503 Act /Wet No. 36 of/van 1947

A Translaminar Emulsifiable Concentrate insecticide and acaricide acting as a direct contact and stomach poison for the control of Red mites, American leafminer and thrips on crops as listed.

ACTIVE INGREDIENT

Abamectin 18 g/ℓ

IRAC INSECTICIDE GROUP CODE 6



DANGER

HAZARD STATEMENTS:

- Toxic if swallowed.
- May damage fertility or the unborn child.
- Very toxic to aquatic life with long-lasting effects.

PRECAUTIONARY STATEMENTS:

- Do not handle until all safety precautions have been read and understood.
- Do not breathe dust, fumes, gas, mist, vapours, spray.
- Wash thoroughly after handling.

Registration holder: Green Island Investments (Pty) Ltd.

Co. Reg. No.: 2013/043963/07
P.O. Box 1822, Heidelberg 1438, South Africa
Tel: 078 737 9236

24 HR EMERGENCY NUMBERS

Griffon Poison Information Centre: +27 82 446 8946
24 Hr Transport / Spill emergency no:
(Hazcall24) +27 86 044 4411 (Typhoon Plant Protection)

Distributed by: Typhoon Plant Protection (Pty) Ltd.

Co. Reg. No.: 1998/006156/07, C/O Farm Vlakfontein
Corner of the R23 Benoni Road & R550 Nigel Road
Brakpan District, Heidelberg 1438, Gauteng, South Africa
Tel: 078 737 9236

Net Mass/Volume:

ℓ

Expiry Date:
Batch No:
Date of Manufacture:
U.N. No. 2902

 **Typhoon**
PLANT PROTECTION

READ LABEL IN DETAIL BEFORE OPENING THE CONTAINER. FOR FULL PARTICULARS, SEE ENCLOSED LEAFLET.
KEEP OUT OF REACH OF CHILDREN AND ANIMALS.



WARNINGS:

Allow the following number of days between last application and harvesting:	
Apples	14 days
Citrus / Pears	7 days
Tomatoes	3 days

HAZARD STATEMENTS:

- Toxic if swallowed.
 - Causes skin irritation.
 - Causes serious eye irritation.
 - May damage fertility or the unborn child.
 - Causes respiratory irritation.
 - Very toxic to aquatic life with long lasting effects.
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- Handle with extreme care.
 - Store under lock and key.
 - **Do not** allow animals to feed on treated foliage.
 - **Do not** use in orchards interplanted with other crops.
 - **Do not** enter treated area without protective clothing until the spray deposit is dry.
 - Unprotected workers must vacate the area before it is treated
 - Poisonous if swallowed, inhaled or absorbed through the skin.
 - Avoid contact with skin or eyes since product is eye irritant and may cause skin irritation.
 - Store away from food and feeds, fertilizers and other chemicals.
 - Keep out of reach of children, uninformed persons and animals.
 - Toxic to fish and wild life.
 - Toxic to bees if exposed to direct spray contact – **do not** spray during periods of high bee activity.
 - **FLAMMABLE: Do not** handle **ABBA 18 EC** near heat or open flame.
 - In case of poisoning call a medical doctor and make this label available to him/her.

Aerial application: Notify all inhabitants in the immediate vicinity of the area to be sprayed and issue the necessary warnings. **Do not** spray over or allow drift to contaminate water or adjacent areas. **Do not** apply by aircraft to orchards

Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not warrant that it will be efficacious under all conditions because the action 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 weed against the remedy concerned, 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 animal or for lack of performance of the remedy concerned due to failure of the user to follow the 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.

PRECAUTIONS:

PRECAUTIONARY STATEMENTS:

- Obtain special instructions before use.
- **Do not** handle until all safety precautions have been read and understood.
- **Do not** breathe dust/fume/gas/mist/vapours/spray.
- Wash thoroughly after handling.
- **Do not** eat, drink or smoke while handling this product.
- Prevent contamination of food, feeds, drinking water and eating utensils.
- Wear eye protection, respirator, rubber gloves and overall when handling the concentrate.
- Wear rubber gloves and overalls when spraying.
- Change and wash contaminated clothes after use daily.
- **Do not** inhale the spray mist.
- Avoid skin and eye contact with the spray.
- Avoid spray drift onto other crops, grazing, rivers, dams and areas not under treatment.
- Clean applicator thoroughly after use and dispose of wash water where it will not contaminate crops, grazing, rivers or dams.
- Wash yourself after spraying.
- Store in a cool, dry place away from sunlight.

Rinse the container three times with a volume of water equal to a minimum of 10% of the container.

Add the rinsing to the contents of the spray tank. Destroy the container by perforation and flattening and **do not** use for any other purpose.

Symptoms of Human Poisoning:

Possible signs of poisoning will be initially the dilation of the pupils, slow breathing and sedation.

More severe poisoning may cause lethargy, muscle tremors and convulsions.

Related ingredients:

Chemical Characterization: Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Hazardous Components:		
Substance name (IUPAC)	CAS - No.	Concentration % By weight
Hexan-1-ol	111-27-3	30-50%
N-methyl-2-pyrrolidone	872-50-4	30-50%
Abamectin (combination of avermectin B1a and avermectin B1b) (ISO)	71751-41-2	1.8%

FIRST AID TREATMENT:

- **Inhalation:** Remove patient to a well ventilated area, away from the source of poisoning. Give artificial respiration or closed cardiac massage if necessary. Maintain open airway passages.
- **Ingestion:** Obtain medical attention immediately.
- **Skin:** Remove contaminated clothing and wash contaminated area thoroughly with plenty of water and soap. **Do not** rub the skin hard.
- **Eyes:** Flush thoroughly with clean water for at least 15 minutes.

GET MEDICAL ATTENTION IN ALL CASES.

Note to Physician:

Antidote: Emetine syrup or ephedrine may be taken. **Do not** treat with drugs which can increase the activity of GABA, such as barbitol or propyl valenic acid in emergency.

DIRECTIONS FOR USE: Use only as indicated.

1. Use only clean water in spray mixture.
2. Always ensure that spray equipment is clean, and correctly calibrated before spraying.
3. **ABBA 18 EC** is effective for the control of adult and immature stages of spider mites, thrips and larval stages of American leafminer.
4. Thorough and even spray coverage of the crop is essential.
5. **ABBA 18 EC** is rapidly absorbed into the plant tissue.
6. Over-spraying may result in less effective control due to loss of active material because of run-off from the leaf surfaces.
7. **ABBA 18 EC** can be used as a preventative or corrective treatment in cotton or tomatoes for the control of red spider mites.
8. **ABBA 18 EC** has the minimum effect on natural enemies of mites, thrips and American leafminer.
9. On Apples and Pears, **ABBA 18 EC** is most suited for use in the **IPM** program, as well as where adequate control of spider mites is not being maintained by natural enemies.

ABBA 18 EC is in general slow acting and although mites and leafminers become immobilized soon after exposure, between 3 and 5 days is necessary, depending on ambient temperatures, to achieve maximum mortality. During this period feeding and plant damage by the pest is minimal.

RESISTANCE MANAGEMENT:

Due to the inherent risk of resistance development to any product, it is strongly recommended that **ABBA 18 EC** is used in a good resistance prevention programme. This program should include the use of products with different modes of action and from different chemical groups. Applications should only be made based on scouting results for the pests.

Do not apply more than;

- 3 sprays of **ABBA 18 EC** per season on cotton,
- 4 sprays at the lowest rate recommended per season on Apples and Pears,
- 2 sprays per season on Citrus,
- 4 sprays on Strawberries per growing season,
- 5 sprays per season on Tomatoes,
- 4 sprays per crop for herbaceous plants and
- 4 sprays per season on perennial crops.

COMPATIBILITY:

ABBA 18 EC may be mixed with molasses for aerial application on cotton.

If tank mixtures with synthetic pyrethroids are applied on cotton, use the lowest recommended dose for weekly applications.

ABBA 18 EC may be mixed with approved light mineral spray oil on apples, pears and citrus.

ABBA 18 EC does not require the addition of surfactants/ adjuvant to the spray mixture.

Since all combinations and sequences of sprays have not been fully evaluated, it is recommended not to tankmix any chemical with **ABBA 18 EC**. Contact your local distributor for up-to-date information on different tank mixtures.

Mixing instructions:

- Measure out the required quantity of **ABBA 18 EC** and premix this with at least 10 liters of water.
- Half fill the spray tank with clean water; add the required quantity of premixed **ABBA 18 EC**.
- If any other product is to be tankmixed with **ABBA 18 EC** e.g. light mineral oil, the required volume of that product must also be pre-mixed as above before adding the mixture to the spraytank.
- The water in the spraytank must be continuously agitated while the pre-mixture is added.
- Fill spray tank with water while maintaining agitation to ensure thorough mixing of the chemicals.
- Maintain agitation during the spraying operation.
- Use the prepared spray mixture immediately and **do not** allow to stand overnight.
- **ABBA 18 EC** can be mixed with waters of different pH values encountered normally in agricultural situations. Optimum pH values are between 5 & 9.

Application:

Ensure spray equipment is clean. Remove sediments, e.g. residues of pesticides, rust and dust from spray tanks before adding **ABBA 18 EC**. Avoid the use of hard or muddy water, or water with a high colloidal content derived from soils high in organic matter. Correctly calibrate all sprayers under field conditions prior to application. It is not necessary to spray to the point of run-off, but essential to ensure complete coverage of the target plants.

EVEN APPLICATION IS ESSENTIAL FOR GOOD RESULTS.

Ground application:

ABBA 18 EC can be applied with conventional ground equipment (tractor mounted booms, knapsack etc).

Optimum spray deposits are obtained with ground equipment calibrated to spray 50 - 3000 l/ha with suitable nozzles to ensure adequate coverage. Where drift is a problem, **do not** exceed 2 Bar. Use only the pressures recommended for specific nozzles to avoid drift.

Aerial application: (on cotton only).

ABBA 18 EC can be applied aerially provided that the spray mixture is evenly distributed over the target area. Keep the loss of spray material to a minimum during application. Adhere to the following to ensure satisfactory results:

- Use only correctly calibrated aircraft.
- A minimum spray volume of 30 l/ha.
- A droplet spectrum VMD of 350 micron.
- Maintain a flying height of 2 m above the target area at windspeed of 8 – 15 km / h and 3m at windspeeds of 0 – 8 km/hr. **Do not** spray when the windspeed exceeds 5 km / h.
- **Do not** spray when the relative humidity is less than 40 %.

- **Do not** spray during the heat of the day.
- **Do not** spray plants covered with a thick layer of dust.
- make sure that spray areas are accurately measured and marked.
- Drift can be controlled with drift reducing agents or low drift nozzles.
- use the correct swath widths appropriate to each type of aircraft.
- **Do not** exceed the following swath widths; Piper Pawnee and AgCat: 20m.
 - AgCat 450 B: 23m.
 - Agwagon and Thrush Commander: 25m.

Obtain assurance from the aerial spray operator that the above specifications will be met.

GENERAL APPLICATION DIRECTIONS:

Tomatoes:

Use a fine spray at high pressure and apply to point of incipient run-off.

Apples and Pears:

Apply as a high volume, high pressure cover spray to point of incipient run-off or as a low volume application.

Add 0,25% by volume of a suitable light mineral oil in the diluted spray mixture. Thorough coverage is essential.

CROP AND PEST:	DOSAGE:	APPLICATION DIRECTIONS:
1. APPLES & PEARS: Red Spider Mite <i>(Tetranychus urticae)</i>	35 ml plus 250 ml light mineral oil/100 l water	Apply when mite populations reach the economic threshold level (see below). If less than 2150 l spray mix/ha is applied, use a minimum of 750 ml ABBA 18 EC / ha in sufficient water for thorough coverage growing season 0
European Red Mite <i>(Panonychus ulmi)</i>	(750 - 1500 ml/ha plus 0,25 % light mineral oil)	NEVER exceed 1,5l /ha per application or 3,0l /ha in one ABBA 18 EC . Apples: Apply only to orchards where the IPM programme is not controlling mites.
2. TOMATOES: Red Spider Mites <i>(Tetranychus urticae)</i>	60 ml/100l water (300 – 1,200 ml/ha)	Apply ABBA 18 EC at first sign of infestation as a full cover high volume, high pressure spray to the point of run-off.
American leafminer <i>(Liriomyza trifolii)</i>	60 ml/100l water (300 – 1,200 ml/ha)	Use up to 2,000 l spray mixture / ha. If less than 500 l water / ha is applied on young plants, not less than 300 ml ABBA 18 EC must be used in sufficient water to ensure full coverage of the plants. Never exceed more than 1,200 ml. ABBA 18 EC per ha. Red Spider Mite - repeat if necessary. American leafminer - repeat at 7 days intervals to maintain control on young plants, not less than 300 ml.

(Continued on next page)

CROP AND PEST:	DOSAGE:	APPLICATION DIRECTIONS:
3. CITRUS Thrips (<i>Scirtothrips aurantii</i>)	10mℓ + 300mℓ light Mineral oil/100ℓ water	Apply ABBA 18 EC when thrip numbers start to increase. Apply as a light cover spray and avoid run off. Do not apply more than two consecutive applications or three times in one season. ABBA 18 EC should be alternated with other registered thripicides to retard resistance development. Do not use when more than 40% fruit are infested.