

Selecron® 500EC

syngenta.

Reg. No. L3113 Act No. 36 of 1947 N-AR 1551 (Namibia) W130348 (Botswana)

An emulsifiable concentrate insecticide and acaricide with contact, stomach and translaminar action for the control of various pests on crops as listed.



EMERGENCY TEL NO.:
+27 82 446 8946 (Griffon)

GROUP 1B INSECTICIDE

Active Ingredient:
profenofos premium grade
(organophosphate)..... 500 g/l

Product names marked ® or ™, the ALLIANCE FRAME, the SYNGENTA Logo and the PURPOSE ICON are Trademarks of a Syngenta Group Company

Hazard statements: Flammable liquid and vapour. Harmful if swallowed. Harmful if inhaled. Causes serious eye damage Suspected of causing cancer. May be fatal if swallowed and enters airways. Very toxic to aquatic life with long-lasting effects. Causes skin irritation. May damage fertility. May damage the unborn child.

Precautionary statements: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. **Response:** If swallowed, immediately call a POISON CENTRE/doctor. If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE/doctor. Do NOT induce vomiting. In case of fire, use dry sand, dry chemical, or alcohol-resistant foam to extinguish. Collect spillage. **Disposal:** Refer to manufacturer or supplier for information on recovery or recycling.

DANGER

UN 1993

Registration holder
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Co. Reg. No. 1998/013761/07
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1. WARNINGS:

Hazard statements: Flammable liquid and vapour. Harmful if swallowed or if inhaled. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye damage. Suspected of causing cancer. Very toxic to aquatic life with long-lasting effects.

Withholding periods: Minimum number of days between last application and harvest.

CABBAGE, CAULIFLOWER.....	7 days
CITRUS.....	60 days
COTTON.....	21 days
CRUCIFERAE (excluding cabbage and cauliflower).....	10 days
POTATOES, ONIONS.....	14 days
TOMATOES.....	4 days

NOTE: Compliance with these withholding periods will ensure that residues do not exceed local maximum residue limits (MRL), but the import tolerances of other countries might possibly be exceeded. If the crop to be treated is intended for export, consult the relevant importer or exporting body regarding the use of this product, MRL's and recommended withholding periods.

- Handle with care.
- May cause skin and eye irritation.
- **Flammable:** Do not store or use near open flames.
- Poisonous if swallowed, inhaled, or absorbed through the skin.
- Toxic to fish, bees and wildlife.
- Store in a cool place.
- Store away from food and feed.
- Keep out of reach of children, uninformed persons and animals.
- **In case of poisoning:** Contact a doctor and present this label.
- **Re-entry:** Do not enter treated area within one (1) day after application unless wearing protective clothing.
- **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 the drift to contaminate water or adjacent areas.

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 and the environment, or harm to people or animals 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, that could not have been foreseen in terms of the registration. Consult the supplier in the event of any uncertainty.

1.1 Environmental and Safety Precautions

BEES

- Toxic to bees. Do not use when bees are actively foraging in crops.
- **DO NOT** apply **SELECRON 500 EC** to flowering crops. **DO NOT** apply **SELECRON 500 EC** where weeds are flowering. Flowering weeds can be destroyed by mowing, disking, mulching, flailing or applying a registered herbicide.
- Do not allow **SELECRON 500 EC** spray to drift to flowering weeds, hedges or flowering crops in the vicinity of the treatment area.
- Do not apply **SELECRON 500 EC** to plants covered with honeydew or where high numbers of aphids are present.

AQUATIC ORGANISMS

- Highly toxic to fish and crustaceans.
- Strictly avoid contamination of water bodies by drift or by run-off.
- Application of unsprayed buffer strip of 50 metres is recommended to protect water bodies from spray drift and run-off.
- Prohibit application to saturated soils or when conditions favour runoff from the treated area.

BIRDS

- Toxic to birds. Do not use when birds are actively foraging in crops. Avoid sprinkling/irrigation of the crop until one (1) day after application.

PERSONAL PROTECTIVE EQUIPMENT

- Wear boots, overall, gloves, face shield and cap.

Avoid sprinkling/irrigation of the crop until one (1) day after application of **SELECRON 500 EC**. Consult with your local Syngenta representative for additional safety practices.

2. PRECAUTIONS:

Precautionary statements: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. **Response:** if swallowed, immediately call a POISON CENTRE/doctor. If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE/doctor. Do NOT induce vomiting. In case of fire, use dry sand, dry chemical, or alcohol-resistant foam to extinguish. Collect spillage. **Disposal:** Refer to manufacturer or supplier for information on recovery or recycling.

- Do not inhale the spray mist or allow it to come into contact with the eyes.
- Wear full protective clothing: Overalls, rubber boots, gloves, a face shield and a face mask.
- Wash with soap and water immediately after use, or in the event of accidental skin contact.
- Wash contaminated clothing after use.
- Do not eat, drink, or smoke while mixing or applying the product or before washing hands and face.
- Avoid drift of spray onto other crops, grazing, rivers, dams and areas not under treatment.
- Clean applicator after use. Dispose of rinsate where it will not contaminate crops, grazing, rivers, dams and boreholes.
- Prevent contamination of food, feed, drinking water and eating utensils.
- Rinse the empty container three (3) times with a volume of clean water equal to a minimum of 10% of the container. Add the rinsate to the contents of the spray tank before destroying the container in the prescribed manner.
- Do not use empty container for any other purpose.

First Aid and Medical Treatment

Symptoms of human poisoning: Nausea, vomiting, diarrhoea and abdominal pain. Large doses: ataxia, weakness of limbs, convulsions, coma and death from respiratory depression.

- **Eye contact:** Hold eyelids apart and pour in a gentle stream of water for 10 - 15 minutes. Go to a doctor.
- **Ingestion: Do not induce vomiting.** Take patient and this product label to a doctor at once for medical treatment.

If gastric lavage is performed, take care to prevent aspiration of gastric contents. Consider administration of activated charcoal and a laxative. Treat symptomatically.

3. RELEVANT SUBSTANCES:

Chemical name	
Profenofos (ISO)	
Classification	Concentration (% w/w)
Acute Tox. 4; H302 Acute Tox. 4; H332 Acute Tox. 3; H311 Skin Sens. 1B; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	≥ 30 - < 50
M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1	
Chemical name	
solvent naphtha (petroleum), heavy arom.; kerosine [unspecified]	
Classification	Concentration (% w/w)
Asp. Tox. 1; H304 Aquatic Chronic 2; H411	≥ 30 - < 50
Chemical name	
calcium bis (dodecylbenzenesulphonate), branched	
Classification	Concentration (% w/w)
Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Chronic 2; H411	≥ 3 - < 10
Chemical name	
naphthalene	
Classification	Concentration (% w/w)
Flam. Sol. 2; H228 Acute Tox. 4; H302 Carc. 2; H351 Aquatic Acute 1; H400	≥ 1 - < 2,5

4. RESISTANCE MANAGEMENT:

SELECRON 500 EC is a group code 1B insecticide. Any insect population may contain individuals naturally resistant to **SELECRON 500 EC** and other group code 1B insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly and exclusively in programs. These resistant insects may not be controlled by **SELECRON 500 EC** or any other group code 1B insecticides.

To delay insecticide resistance:

- Avoid exclusive repeated use of insecticides from the same insecticide group code. Alternate or tank mix with products from different insecticide group codes.
- Integrate other control methods (chemical, cultural, biological) into insect control programs.

Syngenta cannot accept responsibility for any losses that may result from the failure to control pests resistant to SELECRON 500 EC.

For specific information on resistance management contact the registration holder of this product.

5. USE RESTRICTIONS:

CITRUS

Do not exceed 2 l **SELECRON 500 EC** per hectare per growing season, irrespective of the water volume or target.

ONLY FOR USE ON CERTAIN CITRUS CULTIVARS. THE USE OF THIS PRODUCT CONTRARY TO RECOMMENDATIONS POSES CROP RISKS.

IMPORTANT

- **Not for use on easy peel cultivars e.g., grapefruit.**
- **SELECRON 500 EC** is not compatible with alkaline compounds e.g., Bordeaux, sulphur or captab. Do not mix **SELECRON 500 EC** with any metal containing compounds such as copper, zinc, boron, manganese or magnesium. Do not mix **SELECRON 500 EC** with any nitrogen containing foliar feeds or apply a foliar feed two (2) days prior to, or two (2) days after a **SELECRON 500 EC** application.

GENERAL

- Do not treat drought stressed orchards or trees affected by root diseases as leaf drop could occur.
- Use an appropriate acidifier to adjust the pH of the mixing water.

LEMONS

- All fruit larger than golf ball size must be removed from the trees prior to application.

MID-SEASONS

(Citrus)

- Not to be applied at all on fruit larger than pea size. The leaves will be speckled by this treatment but this will have no effect on yield.
- A winter oil application must **never** be followed by a **SELECRON 500 EC** application.
- Avoid repetitive **SELECRON 500 EC** applications within a short period of time (three (3) weeks).
- **SELECRON 500 EC** must not be applied at night.

6. DIRECTIONS FOR USE: Use only as indicated.

6.1 Compatibility

The compatibility of **SELECRON 500 EC** with other products may be influenced by the formulation of the products involved as well as the water quality. Since the formulation of other products may change without the knowledge of Syngenta and the water quality may vary from farm to farm, a physical compatibility test should always be carried out prior to application. **SELECRON 500 EC** is compatible with most insecticides and fungicides of neutral reaction. See USE RESTRICTIONS.

6.2 Mixing Instruction

Replace cap after use.

- Prior to mixing **SELECRON 500 EC**, adjust the pH of the water to 4.5 using a suitable acidifier as recommended.
- Fill the spray tank almost to capacity with clean water and add the recommended quantity of **SELECRON 500 EC** to the spray tank while agitating.

Ensure continuous agitation of the mixture in the tank during mixing and spraying.

After each day's spraying, thoroughly flush out the spraying equipment with clean water.

6.3 Application Techniques

Ground application

SELECRON 500 EC may be applied with a mistblower as well as conventional high volume spraying equipment fitted with nozzles that give medium to fine droplets. Calibrate the apparatus before application to ensure that the correct dosage is applied. The distribution of the spray mixture must be uniform throughout the target area.

The following approximate spray volumes are recommended for use in **cotton**:

Plants shorter than 600 mm.....	100 l/ha
Plants taller than 600 mm.....	200 l/ha

Aerial application

Aerial application precautions: Aerial application of this product may only be done by a registered aerial application operator using a correctly calibrated, registered aircraft according to the instructions of SANS 10118 (Aerial Application of Agricultural Remedies). It is important to ensure that the spray mixture is distributed evenly over the target area and that the loss of spray material during application is restricted to a minimum. It is therefore essential that the following criteria are met:

a) Application parameters

- **Volume:** A volume of 30 l/ha is recommended. As this product has not been evaluated at a reduced volume rate, the registration holder cannot guarantee efficacy or be held responsible for any adverse effects if the product is applied aerially at a lower volume rate than recommended above.
- **Droplet coverage:** A droplet coverage of 30 - 40 droplets per cm² must be recovered at the target.
- **Droplet size:** A droplet spectrum with a VMD of 250 - 280 microns is recommended. Ensure that the production of fine droplets (less than 150 microns - high drift and evaporation potential) is restricted to a minimum.
- **Flying height:** The height of the spray boom should be maintained at 3 - 4 metres above the target. Do not spray when aircraft is in a climb, at the top or during a dive, or when banking.

b) Equipment

- Use suitable atomising equipment (hydraulic nozzles or rotary atomisers) that will produce the desired droplet size and coverage but which will ensure the minimum loss of product either through endodrift (within target field) or exodrift (outside target field).

- The operator must use a setup that will produce a droplet spectrum with the lowest possible relative span.
- All nozzles/atomisers should be positioned within the inner 60 - 75% of the wingspan to prevent droplets from entering the wingtip vortices.

c) Meteorological conditions

- The difference in temperature between the wet and dry bulb thermometers, of a whirling hygrometer, should not exceed 8°C. The addition of a suitable anti-evaporant is recommended if the VMD of the droplets is less than 200 - 250 microns.
- Stop spraying if the wind speed exceeds 15 km/h.
- Aerial application of this product must not be done under turbulent, unstable conditions during the heat of the day when rising thermals and downdraughts occur.
- Also note that the application of this product under temperature inversion conditions (spraying in or above the inversion layer) may lead to the following:
 - Reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage).
 - Damage to other sensitive crops and or non-target areas through the movement of the suspended spray cloud away from the target field.

It is essential to obtain assurance from the aerial spray operator that the above requirements are met.

6.4 Application Rates

CITRUS

(Navels, Valencia's, Mid-seasons, Lemons only)

Do not exceed 2 ℓ **SELECRON 500 EC**/ha per growing season. Read USE RESTRICTIONS.

Pest	Dosage	Remarks
Mealy bug (<i>Planococcus</i> spp.) (<i>Pseudococcus</i> spp.) (<i>Paracoccus</i> spp.) Citrus rust mite (<i>Phyllocoptruta oleivora</i>)	100 ml/100 ℓ water	Apply as a full-cover spray.
Thrips (<i>Scirtothrips aurantii</i>) Psylla (<i>Trioza erytreae</i>)	75 ml/100 ℓ water	Apply as a full-cover spray. When using a mist blower for the control of these pests, the concentration of the spray mixture must be increased according to the decrease in the spray volume. Thrips must again be treated approximately three (3) weeks later using a registered thripicide. Monitor the orchards and spray when the threshold level for thrips is surpassed.

CITRUS cont.

African bollworm (<i>Helicoverpa armigera</i>) Citrus red mite (<i>Panonychus citri</i>) Black citrus aphid (<i>Toxoptera citricidus</i>)	50 ml/100 ℓ water	Apply as a medium-cover spray.
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COTTON

Cotton pest complex: SELECRON 500 EC must be applied in a weekly spray program or as recommended by regular scouting.

Spraying based on a scouting: Scouting is carried out weekly on 24 randomly selected plants from fields up to 15 hectare. Spray as soon as the values indicated below are reached.

Pest	Remarks
African bollworm (<i>Helicoverpa armigera</i>)	<ul style="list-style-type: none"> • Twelve eggs or two (2) larvae per 24 plants. • Spray as soon as the threshold of eggs or larvae is reached during a single scouting. • Spray when the cumulative values over a period of two or more unsprayed weeks exceed the prescribed threshold.
Semi-looper	<ul style="list-style-type: none"> • Up to 12 weeks after plant emergence, spray as soon as 50 % of the leaf surface is damaged. • After 12 weeks, spray as soon as two (2) larvae per 24 plants are found.
Aphids (<i>Aphis gossypii</i>)	Dry land production <ul style="list-style-type: none"> • Spray as soon as aphid colonies are found on six (6) or more plants out of 24. Irrigation <ul style="list-style-type: none"> • Spray as soon as the first signs of honeydew are observed.
Leaf hoppers (Jassids) (<i>Jacobiella</i> spp.)	<ul style="list-style-type: none"> • Spray as soon as two (2) or more insects are found per leaf.
Thrips (<i>Thrips tabaci</i>)	<ul style="list-style-type: none"> • Spray only when high levels of infestation occur.
Red spider mites (<i>Tetranychus</i> spp.)	For optimum control of red spider mites, the following scouting method is recommended to establish the degree of infestation: Examine 1 leaf in the middle region and 2 leaves in the top region of each of 48 plants selected at random for areas up to 15 ha. Allocate one of four code letters (A, B, C or D) to each plant according to the total number of mites found on the three (3) leaves. A = 0 mites B = 1 - 10 mites C = 11 - 30 mites D = more than 30 mites

COTTON cont.

Red spider mites (<i>Tetranychus</i> spp.)	Allocate a score to each plant on the basis of the above-mentioned code letters (A=0; B=1; C=2; and D=3). Total the score for all 48 plants and calculate the population index per plant. It is essential to keep the mean score per plant as calculated above, below the value of two (2) to prevent economic damage to the crop.
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COTTON PEST COMPLEX

	APPLICATION AND PLANT SIZE	DOSAGE ℓ/100 ℓ water	SPRAY VOLUME ℓ/ha	DOSAGE ℓ/ha
Weekly spray program				
African bollworm	Ground application < 600 mm	1.1	100	1.1
Semi-loopers	< 600 mm, but older than 12 weeks	1.5	100	1.5
Aphids	> 600 mm	0.75	200	1.5
Leaf hoppers				
Thrips				
Red spider mites	Aerial application All sizes		30	1.65

Spray according to scouting

African bollworm	Use the same dosage rates as indicated above for a program spray.			
Semi-loopers	Ground application < 600 mm	0.75 - 1.0	100	0.75 - 1.0
Aphids	< 600 mm, but older than 12 weeks	1.0 - 1.5	100	1.0 - 1.5
Leaf hoppers	> 600 mm	0.5 - 0.75	200	1.0 - 1.5
Thrips				
Red spider mites	Aerial application All sizes		30	1.1 - 1.65

The lower rates are recommended as soon as an infestation of **red spider mite** is observed or when the population index is below 0.5. The higher rates are recommended when the 0.5 level is exceeded or when two (2) consecutive scoutings show a rapid increase in the mean score per plant. Repeat sprays within seven (7) days when the mean score per plant increases on subsequent scoutings.

Important

Low volume applications of less than 80 ℓ/ha spray mixture e.g., aerial application, will induce small white scorch marks on the cotton leaves.

THIS PHENOMENON WILL NOT AFFECT THE YIELD.

CRUCIFERAE

(Including cabbage, cauliflower, broccoli and brussels sprouts)

Pest	Dosage	Remarks
Green peach aphid (<i>Myzus persicae</i>) False cabbage aphid (<i>Lipaphis erysimi</i>) Cabbage aphid (<i>Brevicoryne brassicae</i>)	0.75 ℓ/ha	Apply as a full-cover spray at the first signs of infestation and repeat at 7 - 10-day intervals. Ensure thorough wetting of the plants. Use a suitable wetting agent. High volume
Diamond back moth (larvae) (<i>Plutella xylostella</i>) Cabbage semi-looper (<i>Trichoplusia orichalcea</i>) Greater cabbage moth (larvae) (<i>Crociodolomia binotalis</i>)	1 ℓ/ha	<ul style="list-style-type: none"> Apply in 300 - 500 ℓ water/ha, depending on plant size. Mist blower and low volume <ul style="list-style-type: none"> Apply in 200 - 300 ℓ water/ha, depending on plant size.

ONIONS

Pest	Dosage	Remarks
Onion thrips (<i>Thrips tabaci</i>)	1 ℓ/ha	Apply as a full-cover spray at the first signs of infestation and repeat at 7 - 10-day intervals. Ensure thorough wetting of the plants. Use a suitable wetting agent. High volume <ul style="list-style-type: none"> Apply in 300 - 500 ℓ water/ha Mist blower and low volume <ul style="list-style-type: none"> Apply in 200 - 300 ℓ water/ha

POTATOES

Pest	Dosage	Remarks
Green peach	0.75 ℓ/ha	Apply as a full-cover

POTATOES cont.

Pest	Dosage	Remarks
aphid (<i>Myzus persicae</i>) Potato aphid (<i>Macrosiphum euphorbiae</i>)	0.75 ℓ/ha	spray at the first signs of infestation and repeat at 7 - 10-day intervals for as long as the pest occurs. Apply in 300 - 500ℓ water/ha. Ensure thorough wetting of the plants.
Potato tuber moth (<i>Phthorimoea operculella</i>)	1 ℓ/ha	Apply first spray when 10 - 15 % of growth points are infested and repeat at 10 - 14-day intervals as long as the pest remains active. In case of a heavy infestation, apply SELECRON 500 EC at 1.5 ℓ/ha for the first spray. Ensure thorough coverage of the plants by applying in 300 - 500 ℓ water/ha. For aerial application, apply in 30 ℓ water/ha.

TABLE GRAPES

Pest	Dosage	Remarks
Grapevine mealy bug (<i>Planococcus ficus</i>)	100 - 125 ml/100 ℓ water	Early spring spray only Apply twice with a 14-day interval prior to the start of flowering. The second spray must be applied just before flowering starts. SELECRON 500 EC may be phytotoxic to bunches of certain cultivars in the green berry stage. Use the lower rate for maintenance and lower pest pressure situations. Where a heavy infestation occurs, use the higher rate. Method of application Use only handgun type high volume spray equipment. Vines must be individually drenched down to ground level. Use a minimum of 4 ℓ spray mixture per vine. Follow-up sprays (Not SELECRON 500 EC) Certain vineyards may need a follow-up spray in the summer, due to high pest pressure and poor applications. As soon as grapevine mealy bug is observed, a suitable, registered

TABLE GRAPES cont.

Pest	Dosage	Remarks
Grapevine mealy bug (<i>Planococcus ficus</i>)	100 - 125 ml/100 ℓ water	chemical should be applied.

WINE GRAPES

Pest	Dosage	Remarks
Grapevine mealy bug (<i>Planococcus ficus</i>)	100 ml/100 ℓ water	Dormant spray Apply twice with a 14 day interval prior to bud burst. Do not apply after bud burst to avoid any risk of wine tainting. Apply as a high-volume, full-cover spray directed at the vine trunk and the scaffold using 1.5 - 2 ℓ spray mixture per vine depending on size.

TOMATOES

NOT FOR USE IN GREEN HOUSES AND TUNNELS

Pest	Dosage	Remarks
African bollworm (<i>Helicoverpa armigera</i>) Potato tuber moth (<i>Phthorimaea operculella</i>) Tomato semi-looper (<i>Chrysodeixis acuta</i>)	0.75 - 1 ℓ/ha	High volume Apply (using different spray volumes depending on plant size and application method) at the first sign of infestation and repeat at 7 - 10-day intervals as long as pest remains active. Ensure thorough wetting of the plants. For plants up to 600 mm high, use the lower rate in up to 500 ℓ water/ha. For plants taller than 600 mm, use the higher rate in up to 1 500 ℓ/ water/ha. Mist blower and low volume Ensure thorough coverage of the plants. For plants up to 600 mm high, use the lower rate in up to 250 ℓ water/ha. For plants taller than 600 mm, use the higher rate in up to 500 ℓ water/ha. Alternate with SORBA® (L5343). Refer to the SORBA label for application instructions.
Onion thrips (<i>Thrips tabaci</i>)	0.5 - 0.75 ℓ/ha	

TOMATOES cont.

Pest	Dosage	Remarks
Green peach aphid (<i>Myzus persicae</i>)	0.5 - 0.75 l/ha	
Red spider mite (<i>Tetranychus</i> spp.)	1.0 - 1.5 l/ha	

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