

# Metolla 840 EC

South Africa Reg. No: L 10142 Act/Wet No. 36 of/van 1947



An emulsifiable concentrate herbicide with safener for the pre-emergence control of annual grasses and certain broadleaf weeds in maize, sugarcane and groundnuts.

## ACTIVE INGREDIENT

Metolachlor ( $\alpha$ -Chloroacetamides) 840 g/l  
Benoxacor (safener) 28.6 g/l

GROUP 15 HERBICIDE



## WARNING

**HAZARD STATEMENTS:** May be harmful if swallowed | May be harmful in contact with skin | May cause an allergic skin reaction | Causes serious eye damage  
Toxic if inhaled | Very toxic to aquatic life with long lasting effects.

**PRECAUTIONARY STATEMENTS:** Obtain special instruction before use | Do not handle until all safety precautions have been read and understood | Avoid breathing mist, vapours and spray | Use only outdoors or in a well-ventilated area | Avoid release into the environment.

**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 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:

### HAZARD STATEMENTS:

- Harmful if swallowed.
  - Causes mild skin irritation.
  - May cause an allergic skin reaction.
  - Causes serious eye damage.
  - Toxic if inhaled.
  - May cause genetic defects.
  - May cause cancer.
  - Very toxic to aquatic life.
  - Very toxic to aquatic life with long lasting effects
- Store unused **METOLLA 840 EC** tightly closed in this container in a cool, well-ventilated place away from other agrochemicals, seed, food, feed and feedstuffs.
  - Keep behind lock and key and out of reach of children, animals and uninformed persons.
  - Poisonous to livestock and fish.
  - **Do not** contaminate water bodies, dams and rivers.
  - **FLAMMABLE** – **Do not** store or handle near an open flame or naked lights.

### Re-entry interval:

**Do not** enter the treated area within one day when applied to sugar cane as a post emergent treatment unless wearing protective clothing as recommended for applying the prepared spray mixture (see **PRECAUTIONS**).

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:

- **Do not** handle until all safety precautions have been read and understood.
  - Avoid breathing mists, vapours or spray. P264: Wash hands and face thoroughly after.
  - **Do not** eat, drink or smoke when using this product.
  - Use outdoors or in a well-ventilated area. P273: Avoid release to the environment.
  - Wear impervious rubber gloves and boots, protective clothing, and chemical safety goggles.
  - **IF ON SKIN:** Wash with plenty of water and non-abrasive soap.
  - **IF INHALED:** Remove person to fresh air and keep comfortable for breathing.
  - **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
  - If exposed or concerned: Get medical attention.
  - Immediately call a **POISON CENTRE**. P333+P313: If skin irritation or rash occurs: Get medical advice.
  - Collect spillage.
  - Store locked up.
  - Dispose of content/container to suitable landfill in accordance with local regulations.
- Prevent spray drift onto other crops, grazing, water bodies and areas not to be treated.
  - Clean all measuring utensils and application equipment thoroughly after use and before using it to apply any other remedy. Dispose of such wash water responsibly to prevent contamination of the environment and water sources.
  - Rinsing of the immediate container: Invert the empty container over the spray tank and allow to drain for at least 30 seconds after the flow has slowed down to a drip. Thereafter, rinse the empty container three times with a volume of water equal to at least 10 % of that of the container. Add this rinsing water to the contents of the spray tank before destroying the container in the prescribed manner.
  - Destroy the rinsed empty container by perforating and flattening it. Bury the container at least 50 cm deep in the ground and at least 100 m away from a borehole or water source.
  - **Never** use or re-use an empty container for any other purpose.

### SYMPTOMS OF HUMAN POISONING

- No case of human poisoning is known.
- Symptoms may include headache, faintness, giddiness, abdominal pains and vomiting.

### Related ingredients:

| Substance name (IUPAC)               | CAS - No.  | Concentration %<br>By weight |
|--------------------------------------|------------|------------------------------|
|                                      | EC - No.   |                              |
| Metolachlor                          | 51218-45-2 | 90 %                         |
| Benoxacor                            | 98730-04-2 | 5 %                          |
| Calcium dodecylbenzene<br>sulphonate | 90194-26-6 | 1-5 %                        |
|                                      | 290-635-1  |                              |
| Solvent Oil A100                     | 78-83-1    | 1-5 %                        |

#### **FIRST AID TREATMENT:**

- Remove the patient from the source of poisoning to a well-ventilated area and keep him calm and assured.
- Remove contaminated clothing and rinse contaminated body areas with soap and water. **Do not** rub the skin.
- Rinse contaminated eyes with running water for at least 15 minutes.
- If the product was ingested, **do not** induce vomiting. Administer medicinal charcoal repeatedly with plenty of water.
- Never give anything by mouth to an unconscious person.
- **Take the patient immediately to the nearest physician and show him this label.**

#### **NOTE TO PHYSICIAN:**

- No specific antidote is known.
- Treat symptomatically.

#### **RESISTANCE WARNING:**

For resistance management, **METOLLA 840 EC** is an **HRAC Group code 15 herbicide**. Any weed population may contain individuals naturally resistant to **METOLLA 840 EC** and other **Group code 15 herbicides**. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **METOLLA 840 EC** or any other **Group code 15 herbicide**.

#### **In order to delay herbicide resistance:**

- Avoid the exclusive and repeated use of herbicides from the same herbicide group code.
- Alternate or tank mix with products from different herbicide group codes.
- Integrate chemical and other control methods into weed control programmes.

#### **DIRECTIONS FOR USE: (Use only as directed).**

It is a violation of Government Notices R.1716 of 26 July 1991 and R.181 of 7 February 2003 issued in terms of the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No 36 of 1947), to use this product in a manner inconsistent with its labelling, or to decant this product into another container.

#### **Compatibility:**

The compatibility of **METOLLA 840 EC** with other products may be influenced by the formulation of the products involved as well as the quality of the dilution water. Therefore a physical compatibility test should always be carried out prior to application as the formulation of other products may change without the knowledge of Green Island Investments and the quality of water may vary from farm to farm.

Note must be taken of the compatibility instructions on these products' labels.

#### **MIXING INSTRUCTIONS:**

- Half-fill the spray tank with clean water.
- If **METOLLA 840 EC** is to be used on its own, measure the required quantity of **METOLLA 840 EC** and pre-mix this with at least 10 ℓ water. Add this mixture to the water already in the spray tank and agitate the mixture.
- When **METOLLA 840 EC** is to be mixed with any other product, note must be taken of the heading **Compatibility:** mentioned above. Mix the formulated products in the sequence: wettable powder – suspension concentrate – emulsifiable concentrate, as the case may be.

- Fill the spray tank with clean water to the desired level while maintaining agitation to ensure thorough mixing of the spray mixture before spraying commences. If any other product is to be mixed with **METOLLA 840 EC**, pre-mix the required volume of that product in the same way and slowly add it to the contents of the spray tank.
- Maintain agitation during the whole mixing exercise and the spraying operation.
- Prepared spray mixture must not be left in the spray tank for any length of time, e.g., overnight.

#### **METHOD OF APPLICATION:**

##### **Ground application:**

- Apply the prepared spray mixture by means of a tractor-mounted sprayer fitted with a hydraulic spray boom and flat fan nozzles, calibrated to deliver the recommended volume spray mixture per hectare.
- All spray applications must be made with suitable spraying equipment in good working order and correctly calibrated to deliver the desired coverage of the target area for the recommended method of application.
- Apply in at least 200 ℓ water / ha to ensure an even distribution and good recovery of the prepared spray mixture onto the target area.
- **METOLLA 840 EC** must ideally be applied immediately after planting but not later than five days following planting.
- Continual rain or sprinkler irrigation of at least 15 mm is needed after application to leach the chemical into the soil where weed seeds germinate. If however, rainfall does not occur in time and weeds begin to emerge and develop, a shallow cultivation must be carried out to destroy these weeds and to mix the herbicide with the upper 10 to 20 mm of soil.
- To ensure good weed control, the seedbed must be fine, firm and free of any existing weed growth or excessive crop residues prior to application.

#### **USE RESTRICTIONS:**

- **Do not** use **METOLLA 840 EC** on inbred parent lines of maize hybrids or experimental or newly released cultivars without first consulting your supplier or the seed company concerned.
- **Do not** use **METOLLA 840 EC** on poorly drained soils or soils with a compaction layer as under these conditions water logging can occur and the herbicide may cause crop injury.
- **Do not** apply **METOLLA 840 EC** to sandy soils that are susceptible to wind erosion.
- Flood irrigation can reduce weed control performance.

#### **Crop restrictions: Maize.**

**METOLLA 840 EC** must be applied as a split application only and are restricted to areas other than the lower potential soils of the Northwest Province, North and Western Free State.

#### **DOSAGE RATES FOR APPLICATION:**

See **METHOD OF APPLICATION** above.

## A. Maize – single application.

**TABLE 1: For the control of annual grasses and certain broadleaf weeds.**

| % CLAY:  | METOLLA 840 EC: | REMARKS                                                                                                                                                                                                                                                                                                               |
|----------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0 – 10%  | 0,9 – 1,2 l/ha  | Apply pre-emergence within three days after planting of maize. Use the lower dosage rate if a short period of weed control is required between application and cultivation and / or a follow-up application. The higher rates must be used in cases of high grass pressure or for the suppression of yellow nutsedge. |
| 11 – 20% | 1,2 – 1,4 l/ha  |                                                                                                                                                                                                                                                                                                                       |
| 21 – 30% | 1,4 – 1,8 l/ha  |                                                                                                                                                                                                                                                                                                                       |
| 31 – 40% | 1,8 – 2,0 l/ha  |                                                                                                                                                                                                                                                                                                                       |
| 41 – 55% | 2,0 l/ha        |                                                                                                                                                                                                                                                                                                                       |

### NOTE: (Maize).

Low temperatures and / or heavy prolonged rains soon after planting may cause herbicide damage to the crop such as reduced germination, stunting, etc. These symptoms can be aggravated when seed is planted too deep. Seed smaller than 4 Flat has a higher risk for damage.

## B. Sugar cane – pre-emerge application.

**METOLLA 840 EC** can be used in combination with other herbicides for pre- and post emergence weed control in plant or ratoon sugarcane.

## C. Groundnuts, Sunflowers, Dry beans and Soybeans.

**TABLE 2: For the control of annual grasses and certain broadleaf weeds.**

| % CLAY:  | METOLLA 840 EC: |
|----------|-----------------|
| 0 – 10%  | 0,83 l/ha       |
| 11 – 20% | 1,22 l/ha       |
| 21 – 30% | 1,66 l/ha       |
| >31%     | 2,2 l/ha        |

### WEED CONTROL:

Refer to list of weeds controlled, as mentioned below. The control of yellow nut-sedge as well as some broadleaf weeds may be variable depending on favourable conditions. Refer to the list of variable weed control for specific information. To increase the spectrum of broadleaf weeds controlled, it is recommended that either tank mixes or follow-up applications of standard registered broadleaf herbicides are used in combination with **METOLLA 840 EC**, in accordance with the manufacturer's label recommendations.

## LIST OF WEEDS CONTROLLED BY METOLLA 840 EC:

### Annual grasses:

|                               |                     |                              |                      |
|-------------------------------|---------------------|------------------------------|----------------------|
| <i>Brachiaria eruciformis</i> | Sweet signal grass  | <i>Panicum maximum</i>       | Common buffalo grass |
| <i>Chloris virgata</i>        | Feather-top Chloris | <i>Panicum schinzii</i>      | Sweet buffalo grass  |
| <i>Digitaria sanguinalis</i>  | Crabfinger-grass    | <i>Setaria pallide-fusca</i> | Garden bristle grass |
| <i>Eleusine indica</i>        | Goose grass         | <i>Urochloa panicoides</i>   | Herringbone grass    |

### Annual broadleaf weeds:

|                            |                   |                               |                                      |
|----------------------------|-------------------|-------------------------------|--------------------------------------|
| <i>Amaranthus deflexus</i> | Perennial pigweed | <i>Chenopodium carinatum</i>  | Green goosefoot                      |
| <i>Amaranthus hybridus</i> | Common pigweed    | <i>Commelina benghalensis</i> | Benghal wandering Jew                |
| <i>Amaranthus spinosus</i> | Thorny pigweed    | <i>Datura spp</i>             | Thorn apple (early germinating only) |
| <i>Chenopodium album</i>   | White goosefoot   | <i>Portulaca oleracea</i>     | Purslane                             |

Since **METOLLA 840 EC** controls annual grasses, other annual grasses that are not listed may be controlled to a greater or lesser degree. The registration holder does not accept any liability in respect of the control of unlisted weeds.

### CONTROL OF THE FOLLOWING WEEDS IS VARIABLE:

*Cyperus esculentus* – Yellow nutsedge.

The control of *Cyperus esculentus* is dependent on the following:

- Where a dosage choice is given, the higher rate should be used.
- Planting must be preceded by a deep ploughing.
- **METOLLA 840 EC** must be applied immediately after planting or within two days.
- At least 12 mm rain or irrigation must fall within 7 to 10 days of spraying.

### NOTE:

*Cyperus esculentus* control may only be achieved under the following conditions:

Planting into a fine and firm seedbed must be directly preceded by a deep mouldboard ploughing. Spraying must take place within two days after planting and sufficient continual soaking rain (at least 15 mm on light soils and 25 mm on heavy soils) has to occur before the yellow nutsedge plants start to germinate and develop.

# WEEDS CONTROLLED BY METOLLA 840 EC AND DIFFERENT TANK MIXTURES AT THE HIGHER APPLICATION RATE:

## Broadleaf weeds:

|                                 |                                |                                |                                            |
|---------------------------------|--------------------------------|--------------------------------|--------------------------------------------|
| <i>Acanthospermum australe</i>  | Eight-seeded prostrate starbur | <i>Crotalaria sphaerocarpa</i> | Mealie Crotalaria                          |
| <i>Acanthospermum glabratum</i> | Five-seeded prostrate starbur  | <i>Datura ferox</i>            | Large thorn apple (early germination only) |
| <i>Acanthospermum hispidum</i>  | Upright starbur                | <i>Datura stramonium</i> *     | Thorn apple (early germination only)       |
| <i>Amaranthus hybridus</i> *    | Common pigweed                 | <i>Galinsoga parviflora</i>    | Gallant soldier                            |
| <i>Amaranthus spinosus</i> *    | Thorny pigweed                 | <i>Gisekia pharnaceoides</i>   | Gisekia                                    |
| <i>Amaranthus thunbergii</i> *  | Red pigweed                    | <i>Hibiscus trionum</i>        | Bladder weed                               |
| <i>Bidens bipinnata</i>         | Spanish black jack             | <i>Hibiscus cannabinus</i>     | Kenaf                                      |
| <i>Bidens pilosa</i>            | Blackjack                      | <i>Nicandra physaloides</i>    | Apple-of-Peru                              |
| <i>Chenopodium album</i> *      | White goosefoot                | <i>Physalis angulata</i> *     | Wild gooseberry                            |
| <i>Chenopodium carinatum</i>    | Green goosefoot                | <i>Portulaca oleracea</i> *    | Purslane                                   |
| <i>Cleome monophylla</i>        | Spindlepod                     | <i>Richardia brasiliensis</i>  | Tropical Richardia                         |
| <i>Cleome rubella</i>           | Pretty lady                    | <i>Schkuhria pinnata</i> *     | Dwarf marigold                             |
| <i>Commelina benghalensis</i>   | Bengal wandering Jew           | <i>Tagetes minuta</i> *        | Khakiweed (early germination only)         |
| <i>Cosmos bipinnatus</i>        | Cosmos                         | <i>Vigna vexillata</i>         | Wild-cowpea                                |

Weeds marked with \* will be controlled by a tank mix of **METOLLA 840 EC** with broadleaf herbicides.

Drought or water logging may result in reduced weed control.