Skotvry

Reg. No.: L 9142 Act/Wet No. 36 of/van 1947

A suspo-emulsion systemic pre- and post-emergence herbicide for the control of annual broadleaf weeds, grasses and the suppression of certain weeds in sugarcane and maize.

ACTIVE INGREDIENT | **HRAC HERBICIDE GROUP CODE** | **K3 + F2 + C1**

Metolachlor (chloro-acetanilide)	375 g/ℓ
Mesotrione (chloroacetanilide)	37.5 g/ℓ
Terbuthylazine (triazine)	125 g/ℓ

WARNING

HAZARD STATEMENTS: May be harmful in contact with skin | Causes mild skin irritation | May cause an allergic skin reaction | Very toxic to aquatic life Very toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS: Avoid release to the environment
Wear impervious rubber gloves and chemical safety goggles.

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. 3082

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:
Withholding periods:

Minimum number of days between last application and harvest or grazing	
Sugarcane	180 days (6 months)
Maize	56 days

HAZARD STATEMENTS:
- May be harmful in contact with skin.
- Causes mild skin irritation.
- May cause an allergic skin reaction.
- Very toxic to aquatic life.
- Very toxic to aquatic life with long lasting effects.

- Harmful if swallowed.
- Handle with care.
- May irritate the skin and eyes.
- Keep out of reach of children, uninformed persons and animals.
- Store in a cool, dry place away from food and feed.
- Toxic to fish and other agricultural organisms.
- In case of poisoning call a doctor and make this label available.
- **Re-entry: do not** enter treated area within 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 or allow 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 weeds against the remedy concerned, as well as 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 humans, 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, which could not have been foreseen in terms of the registration. Consult the supplier in event of any uncertainty.

PRECAUTIONS:

PRECAUTIONARY STATEMENTS:
- Avoid release to the environment.
- Wear impervious rubber gloves and chemical safety goggles.

- **Do not** inhale fumes or the spray mist.
- Wear protective clothing: rubber gloves, rubber boots and a suitable face shield when handling the concentrate, preparing the spray mixture and during application.
- Wash contaminated clothing after use.

- Wash with soap and water after use and after accidental skin contact.
- **Do not** eat, drink or smoke whilst mixing or applying the product or before washing hands and face and change of clothing.
- Prevent drift onto other crops, grazing, rivers, dams and areas not under treatment or to nearby water sources.
- Thoroughly clean spraying equipment directly after use and dispose of wash water where it will not contaminate food, grazing, boreholes, rivers or dams.
- **TRIPLE RINSE** empty containers in the following manner: Invert the empty container over the spray or mixing tank and allow draining 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 minimum of a third of that of the container. Add the rinsing to the contents of the spray tank before destroying the container in the prescribed manner.
- Destroy the empty container by perforation and flattening and dispose of it in a safe way.
- **Never** re-use the empty container for any other purpose.
- Prevent contamination of food, feeds, drinking water and eating utensils.

Relevant substances:
Hazardous ingredients of toxicological concern:

Ingredient	Concern	% present
S-Metolachlor	Irritant	37.5%
Mesotrione	Mild eye Irritant	3.75%
Terbuthylazine	Harmful	12.5%

SYMPTOMS OF HUMAN POISONING:
Irritation effects on skin and mucous membranes are the most common reactions. May cause irritation to the eyes. Allergic skin reaction may occur. May cause skin sensitization. Ingestion of large amounts can cause nausea, vomiting, abdominal distress and diarrhoea.

FIRST AID TREATMENT:
- **Skin contact:** Remove contaminated clothing, shoes and leather goods immediately (e.g. watch bands and belts). Wash skin gently and thoroughly with non-abrasive soap and large amounts of water. Seek medical attention if necessary.
- **Eye contact:** Flush eyes immediately with large amounts of gently flowing cold water or normal saline solution, for approximately 15 to 20 minutes, while holding the eyelid(s) open. **If irritation persists, get medical attention**.
- **Inhalation:** Immediately remove source of contamination or move the person to fresh air. Perform artificial respiration if necessary. Only qualified medical personnel should administer oxygen. Keep person calm and re- assured. **Seek medical attention immediately**.
- **Ingestion:** Have patient rinse mouth thoroughly with clean water. **Do not induce vomiting, due to the aromatic solvent. Obtain medical advice immediately**. Never give anything by mouth to an unconscious person. Treat respiratory difficulty with artificial respiration and oxygen. Only qualified medical personnel should administer oxygen or gastric lavage.

NOTE TO PHYSICIAN:
No specific antidote. Treat symptomatically and supportively. Keep patient under observation. Perform gastric lavage and catharsis if the patient is not unconscious. If less than 10 mg per kg body weight, was ingested, administer 30 to 60 g activated charcoal in 150 to 300 ml water.

RESISTANCE WARNING:
SKOTVRY is a **group code K3**, **F2** and **C1 herbicide**. Any weed population may contain individuals naturally resistant to **SKOTVRY** and other **group code K3**, **F2** and **C1 herbicides**. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **SKOTVRY** or any other **group code K3**, **F2** and **C1 herbicide**. To delay herbicide resistance:

- avoid exclusive repeated use of herbicides from the same herbicide group code. Alternate or tank mix with products from different herbicide group codes,
- integrate other control methods (chemical, cultural, biological) into weed control programmes.
- **Do not** use **SKOTVRY** with other HPPD inhibitors e.g. isoxaflutole or mesotrione and sulcotrione-containing products within the same growing season.

USAGE RESTRICTIONS:
General

a) **Insecticide Use**
SKOTVRY should not be applied post-emergence in tank-mix with an organophosphate e.g.chlorpyrifos.
If a carbamate insecticide e.g. aldicarb is used at planting, **SKOTVRY** can only be applied 21 days later.

b) Soil Moisture
SKOTVRY requires rain or overhead irrigation of more than 20 mm within 7 - 14 days of application to provide optimal weed control.

1. Application through irrigation systems (only for pre-emergence weed control):

c) **SKOTVRY** can only be applied through a centre pivot irrigation system for pre-emergence weed control.
d) **SKOTVRY** could only be applied through a well-operated and well-maintained centre pivot.
e) Applications should only be done through centre pivots equipped with an injector system.
f) The centre pivot should apply between 4,5 mm and 7,5 mm of water when applying **SKOTVRY**. Control should be for at least 70 - 84 days (10 - 12 weeks).
g) Calculate the injection rate carefully and make sure it is correct.
h) Apply within 2 days of planting or before the emergence of any weeds.
i) Application should be done to fields which are well prepared with a fine seedbed and with no germinating or established weeds.
j) Once **SKOTVRY** has been applied on the whole centre pivot area, it should be set to apply the following water volumes if sufficient rain did not occur.
10 mm water per ha when clay content < 20%
15 mm water per ha when clay content is 20 - 35%
20 mm water per ha when clay content > 35%
k) Keep soil wet for a period of 7 -1 4 days after application.
l) Be aware that the application and distribution of **SKOTVRY** will only be as even as the application of the irrigation water.
m) **Do not** apply **SKOTVRY** through the irrigation water in excessive wind speeds (wind speed should be < 6 ms-1).
n) Be careful when the centre pivot overlap at the end of the cycle area as serious over dosage and possible damage could occur.
o) Care should be taken when applying **SKOTVRY** through the centre pivot as breakages or stoppages could lead to major over application and crop damage.

p) Care should be taken not to contaminate boreholes or dams with accidental spillages of chemicals in the irrigation system. Injection of **SKOTVRY** close or at the centre of the pivot is preferable. Both the injector pump and the water pump should be fitted with valves to stop injection as soon as the pivot 's forward movement is stopped. The main irrigation water sup-ply line should also be fitted with a non-return valve to prevent treated water to run back into the supply source.

2. Aerial Application:

Aerial application of **SKOTVRY** may only be done by a registered aerial application operator using a correctly calibrated, registered aircraft according to the instructions of SANS Code 10118 (Aerial Application of Agricultural Pesticides) . 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 be met:

- **Flying height:** The height of the spray boom should be maintained at 3 to 4 metres above the target. **Do not** spray when aircraft is in a climb, at the top of, or during a dive, or when banking.
- 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 spraying system must produce a droplet spectrum with the lowest possible Relative Span.
- All nozzles/atomisers should be positioned within the inner 60 % to 75 % of the wingspan to prevent droplets from entering the **wingtip vortices**.
- The difference in **temperature** between the wet and dry bulb thermometers, of a whirling hygrometer should not exceed 8 °C.
- Stop spraying if the **wind speed** exceeds 15 km per hour.
- 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.
- Spraying under temperature **inversion conditions** (spraying in or above the inversion layer) and/or **high humidity conditions** (relative humidity 80 % and above) 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.
- Ensure that the aerial spray operator knows exactly which fields to spray.

Obtain assurance from the aerial spray operator that the above requirements will be met and that relevant data will be compiled in a spray log and kept for future reference.

Pre-emergence aerial application:

- **Volume:** A spray mixture volume of 30 to 40 litres per hectare 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 this product is applied aerially at a lower volume rate than recommended.
- **Droplet coverage:** Droplet coverage of 20 to 30 droplets per cm^2 must be recovered at the target area.
- **Droplet size:** A droplet spectrum with a VMD of 350 to 400 micron is recommended. Limit the production of fine droplets less than 150 micron (high drift & evaporation potential) to a minimum.

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

Follow-on crops:
The planting of follow-on crops may be limited by the previous use of SKOTVRY and or other herbicides in previous or even the same sugar ratoons. The following waiting periods should be adhered to:

Maize and sugarcane	0 months
Barley, Dry beans, Grain sorghum, Groundnuts	9 months
Potatoes, Soybeans Sunflowers, Wheat	9 months
All other crops including cotton	24 months

APPLICATION ON PRE-EMERGENCE AND EARLY POST-EMERGENCE APPLICATION:
- The clay content of the soil does not affect the dosage rate of **SKOTVRY**.
- **SKOTVRY** must be applied either pre-emergence or early post-emergence of the weeds.
- At application the growth stage of the grasses should not be larger than 2 - 3 leaves without any tillers.
- Broadleaf weeds not be larger than 4 - 6 leaf stages.
- **SKOTVRY** applications should be made during the late spring and summer season when the chance of rain is high.
- **SKOTVRY** will give long residual activity under favourable climatic conditions. Residual activity of at least 10 - 12 weeks can be expected under favourable conditions.
- **PARAQUAT 200 S**L must be added when **SKOTVRY** is applied early post-emergence for the control of grasses. **PARAQUAT 200 SL** is added to the mixture at 500 ml/ha.
- Applications with **SKOTVRY + PARAQUAT 200 S**L can be applied broadcasted in ratoon cane up to a height of 30 cm. In plant cane **PARAQUAT 200 SL** should not be applied later than the spike stage of the crop. (Refer to the **PARAQUAT 200 SL** label).
- The registration holder does not accept any liability for damages or poor performance when paraquat other than **PARAQUAT 200 SL** is used in combination with **SKOTVRY**.
- **SKOTVRY** can be applied where drip irrigation cropping systems are used however drip irrigation is not sufficient to activate and distribute **SKOTVRY** in the absence of rainfall. To activate **SKOTVRY**, overhead irrigation or rain of at least 20 mm is required. **SKOTVRY** may not be applied through drip irrigation system.
- **SKOTVRY** should not be used in flood irrigation systems other than achieving post-emergence knockdown. Flood irrigation will reduce the residual activity of **SKOTVRY**.
- **SKOTVRY** should not be applied in high organic matter soils (>3%) or onto soils with excessive trash or burnt sugarcane rubble as reduced residual action would be expected.

DIRECTIONS FOR USE:
- Compatibility studies have been conducted with **SKOTVRY** in combination with only **ONE at a time** of the products listed below (except where being recommended as such on this label). Multiple combinations of the above-mentioned compounds have not been tested.
- As variations may exist between formulations of products containing the same active ingredients, the trade names and registration numbers of the approved products are shown.
- **SKOTVRY** is compatible with **Paraquat 200 SL** (L10180), **TYBOOST** (L10834)
- Use only clean water and add ammonium sulphate e.g. **TYBOOST** (L10834) to the water at a rate of 1 - 2%.
- The use of registered buffers is recommended however the pH should not be allowed to go below 6.5.

Mixing instructions:
- Fill the spray or pre-mix tank with clean water and engage agitator.
- Agitation must be continued throughout the mixing and spraying operation.
- Re-suspend the spray mixture if agitation was suspended for longer than 5 min.
- When the spray or pre-mix tank is half full with water, add **SKOTVRY** slowly and agitate until completely dispersed. **PARAQUAT 200 SL** can be added now whilst agitating continuously.

Tractor application:
- **SKOTVRY** must be applied the same day as mixing.
- Apply by means of a tractor mounted boom sprayer, which is correctly calibrated with continuous agitation to deliver at least 200 - 300 l spray mixture/ha. Avoid overlapping of spray swaths.
- Flat fan hydraulic nozzles (110º) are recommended for optimum coverage.
- Rain or irrigation of 10 - 20 mm is needed after application to leach the chemical into the germinating zone.
- If this precipitation does not happen within 14 days of application, reduced efficacy can be expected.

SUGARCANE: A pre-emergence and early post-emergence application on both sugarcane and weeds:

All **pre-emergence** applications of **SKOTVRY** will control both the broadleaf weeds and grasses mentioned in the table below.
No addition of PARAQUAT 200 SL is necessary.
For **all early post-emergence** applications of **SKOTVRY** to control sedges and grasses a tank mixture with **PARAQUAT 200 SL** is recommended as described.

Recommended adjuvant: In all early post-emergence applications of **SKOTVRY** the following adjuvant must be used: **TYBOOST**

SKOTVRY 3.33 ℓ/ha PLUS TYBOOST			
(Botanical Name and Common Name)			
Ageratum conyzoides	Invading Ageratum	*Parthenium hysterophorus*	Dimoina weed
Amaranthus hybridus	Common pigweed	*Portulaca oleracea*	Purslane
Brachiaria deflexa	False signal grass	*Richardia brasiliensis*	Tropical Richardia
Brachiaria nigropedata	Black footed grass	*Sesbania bispinosa*	spiny Sesbania
Commelina benghalensis	Benghal wandering Jew	*Sida cordifolia*	Heart-leaf Sida
Digitaria sanguinalis	Crab finger grass	*Sida spinosa*	Spiny Sida
Digitaria ternata	Black seed finger grass	*Tragus berteronianus*	Small carrot seed grass
Eleusine indica	Goose grass	*Urochloa panicoides*	Herringbone grass
Panicum deustum	Broadleave Panicum		

SKOTVRY 4 - 5 ℓ/ha PLUS TYBOOST			
(Botanical Name and Common Name)			
Acanthospermum hispidum	Upright starbur	*Ipomoea aristolochiaefolia*	Small morning glory
Ageratum conyzoides	Invading Ageratum	*Ipomoea purpurea*	Common morning glory
Amaranthus hybridus	Common pigweed	*Kyllinga erecta*	White sedge
Amaranthus spinosus	Thorny pigweed	*Nicandra physaloides*	Apple-of-Peru
Chenopodium album	White goosefoot	*Parthenium hysterophorus*	Demoina weed
Chenopodium carinatum	Green goosefoot	*Portulaca oleracea*	Purslane
Cleome monophylla	Spindle pod	*Pseudobrachiaria deflexa*	False signal grass
Commelina benghalensis	Benghal wandering jew	*Richardia brasiliensis*	Tropical richardia
Convolvulus arvensis	Field bindweed	*Sesbania bispinosa*	Spiny sesbania
Corchorus trilocularis	Wild jute	*Sida cordifolia*	Heart-leaf sida
Crotalaria sphaerocarpa	Mealie crotalaria	*Sida rhombifolia*	Arrow-leaf sida
Datura ferox	Large thorn apple	*Sida spinosa*	Spiny sida
Datura stramonium	Thorn apple	*Tagetes minuta*	Khaki weed
Hibiscus cannabinus	Kenaf	*Tribulus terrestris*	Dubbeltjie
Hibiscus trionum	Bladder weed		

For early post-emergence control of grasses the addition of PARAQUAT 200 SL at 500 mℓ/ha would additionally control the following grasses:			
(Botanical Name and Common Name)			
Brachiaria deflexa	False signal grass	*Panicum deustum*	Broadleaved Panicum
Brachiaria nigropedata	Black footed signal grass	*Panicum maximum*	Common buffalo grass
Cyperus esculentus	Yellow nutsedge	*Panicum schinzii*	Sweet buffalo grass
Digitaria sanguinalis	Crab finger grass	*Tragus berteronianus*	Small carrot seed grass
Digitaria ternata	Black seed finger-grass	*Urochloa mosambiciensis*	Bushveld herringbone grass
Echinochloa colona	Marsh grass	*Urochloa panicoides*	Herringbone grass
Eleusine indica	Goose grass		

MAIZE: (Conventional and glyphosate tolerant maize)
An early post-emergence application on both maize and weeds:

Recommended adjuvant: In all early post-emergence applications of **SKOTVRY** the following adjuvant must be used: **TYBOOST**.

SKOTVRY 3.33 ℓ/ha PLUS TYBOOST			
(Botanical Name and Common Name)			
Ageratum conyzoides	Invading Ageratum	*Parthenium hysterophorus*	Dimoina weed
Amaranthus hybridus	Common pigweed	*Portulaca oleracea*	Purslane
Brachiaria deflexa	False signal grass	*Richardia brasiliensis*	Tropical Richardia
Brachiaria nigropedata	Black footed grass	*Sesbania bispinosa*	Spiny sesbania
Commelina benghalensis	Benghal wandering jew	*Sida cordifolia*	Heart-leaf Sida
Digitaria sanguinalis	Crab finger grass	*Sida spinosa*	Spiny sida
Digitaria ternata	Black seed finger grass	*Tragus berteronianus*	Small carrot seed grass
Eleusine indica	Goose grass	*Urochloa panicoides*	Herringbone grass
Panicum deustum	Broadleave panicum		

The following product mentioned in this label may be replaced with equivalent products:
- **PARAQUAT 200 SL** (L10180)
- **TYBOOST** (L10834)

PARAQUAT 200 SL and **TYBOOST** are registered products of Green Island Investments (Pty) Ltd.