Read the label before opening the container. For full particulars, see enclosed leaflet.

KEEP OUT OF REACH OF CHILDREN AND ANIMALS

OUTPACE SUPER

South Africa Reg. No: L4769 Act No. 36 of 1947

HRAC HERBICIDE GROUP CODE: G & C1

A suspension concentrate herbicide with systemic and residual activity for SpeciesSwitch© and for the control of weeds as listed in non-crop areas and apple and pear orchards

ACTIVE INGREDIENT:

Glyphosate isopropylamine salt.....167g/ℓ
(Glyphosate acid equivalent).....125g/ℓ)
Simazine (triazine).....175g/ℓ
Terbuthylazine (triazine).....175g/ℓ
Other related triazines.....1,8g/ℓ
Total active triazines.....351,8g/ℓ

Product Information: 072 678 8226
In case of poisoning: 082 446 8946



HAZARD STATEMENTS

- Suspected of causing cancer.
- May cause damage to organs through prolonged or repeated exposure.
- Very toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

- Use only outdoors or in a well-ventilated area.
- Avoid release to the environment.

Registration holder: Enviro Industries (Pty) Ltd
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Expiry Date:
Batch No:
Date of Manufacture:

UN No. 3082

WARNINGS:

- Suspected of causing cancer.
- May cause damage to organs through prolonged or repeated exposure.
- Very toxic to aquatic life with long lasting effects.
- Keep out of reach of children, uninformed persons and animals.
- Store away from food, feed, fertilizers and other agricultural chemicals.
- The product should be mixed, stored and applied only in stainless steel, aluminium, fibreglass, plastic or plastic lined containers.
- Do not mix, store or apply the product or solutions in galvanised steel or unlined steel (except stainless steel) containers or spray tanks. The product can react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture that can flash or explode if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

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 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:

- Do not handle until all safety precautions have been read and understood.
- Wash hands, forearms, and face thoroughly after handling
- Do not eat, drink, or smoke when using this product.
- Wear protective gloves/protective clothing/eye protection/face protection.
- IF exposed or concerned: Get medical advice/attention.
- Do not breathe dust/fume/gas/mist/vapours/spray.
- Use only outdoors or in a well-ventilated area.
- Avoid release to the environment.
- Store in a well-ventilated place.
- Do not mix and load within at least 15 m from boreholes, streams, rivers and dams.
- Clean applicator thoroughly after use and dispose of rinsings where it will not contaminate crops, grazing, rivers or dams.
- Triple rinse empty container 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 empty container three times with a volume of water equal to a minimum of 10% of that of the container. Add the rinsings to the content of the spray tank. Empty containers should be taken for local recycling or waste disposal. Do not re-use empty containers.

USE PRECAUTIONS:

- Ensure that persons assigned to apply the products are adequately trained.
- Prevent spray drift onto susceptible or edible crops, grazing, green or immature bark and fruit of non-target plants, which can result in serious localised or trans located damage.
- Do not apply within at least 15 m from boreholes, streams, rivers and dams.
- Do not apply within at least 60 m of dams.

RELEVANT SUBSTANCES:

Glyphosate isopropylamine salt 24.1 %
Terbuthylazine 15.8 %
Simazine 15.6 %
Ethylene glycol < 1%
Formalin < 1%

FIRST AID TREATMENT:

INHALATION: Remove person to fresh air and keep comfortable for breathing.
INGESTION: Immediately call a POISON CENTER or doctor/physician.
SKIN CONTACT: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
EYE CONTACT: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

APPLICATION:

Avoid drift. Extreme care must be taken when applying this product to prevent injury to desirable plants and crops. Do not spray under conditions when spray drift to desirable vegetation may occur. Clean all equipment after use by thoroughly flushing with water. Do not drench weeds or spray beyond the point of run-off. Always calibrate the equipment under field conditions.

BOOM EQUIPMENT:

- Apply the recommended rates of **OutPace SUPER** at volumes between 200 to 300ℓ water per hectare.
- A nozzle giving fine to medium sized droplets is preferred to coarse droplets to ensure adequate coverage of the leaf surface.
- Boom height must be set to ensure the correct overlap of nozzle patterns at the top of the weed canopy.
- Standard flat fan nozzles may be used at pressures of 200 to 300kPa.
- Alternatively low drift nozzles may be used at pressures of 100 to 200kPa.

KNAPSACK EQUIPMENT:

- Standard or "low-drift" flat fan nozzles or anvil type (TK Series) nozzles may be used to apply **OUTPACE SUPER**.
- Maintain the band width, walking speed and pressure used in the initial calibration. The use of the Weedmaster "spray management valve" will ensure a constant output from the nozzle.
- As a guide, in order to achieve approximately 200ℓ/ha "low drift" or "standard" flat fan tips 8002 or 8003 can be used at a walking speed of 1m/second (3.6km/hour), and covering a swath of 500mm. Use a pressure of 100 to 200kPa for the low pressure tips and 200 to 300kPa for the standard tips.
- Anvil TK 2.5 at 150kPa will deliver the same volume as above over a 1 metre spray band.
- For application to individual weeds, (spot spraying), a hollow or solid cone nozzle is best employed. A D-4 disc with no. 25 core will produce a hollow cone pattern at 200 to 300kPa. A TG2 nozzle produces a suitable full cone pattern at 200 to 300kPa.

LOW VOLUME CONTROLLED DROPLET APPLICATION EQUIPMENT (CDA)

Hand held or mounted CDA equipment may be used to apply **OUTPACE SUPER**. Hand held equipment such as the **Micron Herbi, Micron Herbiflex and Matabi** disc sprayer is suitable for application on weeds under 500mm high. Using this equipment at a walking speed of 3.6km/hour (1m/second) is recommended. Refer to the weeds list for specific rates and use recommendations. CDA equipment produces a fine hollow cone spray pattern which is not easily visible. Ensure the spray does not come in contact with foliage or any other green tissue or desirable plants since severe injury or destruction may result. Use the following table as a guide, but always calibrate the equipment under field conditions to determine the application rate.

TYPE	MIXTURE (BY VOLUME) OUTPACE SUPER : WATER	RATE OUTPACE SUPER DELIVERED ℓ/HA AT A WALKING SPEED OF 1M/SEC
Micron Herbi	1:2 (33%)	10
	1:1 (50%)	15
Blue nozzle	2:1 (66%)	20
Matabi Herbidisk	1:2 (33%)	10
	1:1 (50%)	15
Red Nozzle	2:1 (66%)	20
Herbiflex	1:2 (33%)	10
	1:1 (50%)	15
Brown nozzle	2:1 (66%)	20

WEEDMASTER CDA MOUNTED APPLICATOR:
OUTPACE SUPER may be applied to weeds using this equipment along security fences, yards and for firebreaks where the use of hand operated or high volume equipment is uneconomical. Volumes of 30 - 50ℓ/ha, total volume can be applied. Select the rate of **OUTPACE SUPER** required and after calibration add the quantity to the tank. Always maintain the selected speed.
Consult a representative from the supplier for in-field assistance. Consult the "Weedmaster guide to application equipment" for further information on application methods.

MIXING INSTRUCTIONS:
Shake well before use.
Replace cap after pouring. The tank should be half filled with clean water and pour the required quantity of product through a 50 mesh sieve into the tank while agitating gently. Agitation should be maintained at all times, including standing time. Vigorous agitation should not be used to prevent excessive foaming. Thoroughly flush the tank, pump and spray lines immediately after use to prevent caking of residues in the apparatus. Dispose of residues in a safe place where damage to desirable vegetation will not occur.

WATER QUALITY:
Reduced results may occur if water containing soil or organic matter is used, e.g. from dams or rivers, or if hard water containing calcium is used.

SPRAY WATER MODIFIERS:
The addition of ammonium sulphate at 1 to 2kg per 100ℓ water or bladbuff 5 at the recommended rate may improve results when hard water is used.

USAGE:
1. **As a non-selective herbicide:**
   OUTPACE SUPER may be used on sidewalks, roadsides, railway lines, electrical marshalling or storage yards, between security fences and drainage lines, or wherever non-selective weed control is required.
2. **As a "SpeciesSwitch©" treatment:**
   OUTPACE SUPER may be used as a **SpeciesSwitch©** treatment by removing tall growing bunch grasses and other weeds while pre venting the invasion of annual weeds and increasing basal cover by encouraging the growth of *Cynodon dactylon*. This method reduces mowing costs, fire risks, improves visibility and reduces soil erosion. It may be used:
- To improve the utilisation of roadsides, open areas, transmission servitudes and security fences.
- For **SpeciesSwitch©** and weed control on canal bank servitudes in irrigation and on dual purpose water conveyancing systems subject to the provisions in the directions for use.

3. **On firebreaks.**
4. **Use on paved and asphalted areas.**

5. For the control of a wide spectrum of annual weeds in apple and pear orchards (trees older than 3 years) when applied as a directed spray.

RESISTANCE WARNING:

For resistance management **OUTPACE SUPER** is a **group code C1 & G** herbicide. Any weed population may contain individuals naturally resistant to **OUTPACE SUPER** and other **group code C1 & G** herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **OUTPACE SUPER** or any other **group code C1 & G** 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.

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

DIRECTIONS FOR USE: Use only as directed

GENERAL:

- **OUTPACE SUPER** has both foliar and soil acting properties. It is used post-emergence against many annual and perennial broadleaf weeds and grasses, and for the pre-emergence control of subsequent germination.
- Apply to green foliage and stems to control growing weeds, while residual control takes place through the soil.
- Weeds are best treated when growing vigorously and prior to seed formation. Do not treat plants which are dormant or which have been frosted, or growing poorly due to drought, water-logging or are covered with dust or silt. Diminished results may occur when spraying is done when weeds are covered with deu.
- Visible effects on annual weeds may take place up to 7 days, while on perennial weeds may take 2 to 3 weeks or longer to become evident. Results are quicker under warm conditions. Perennial weeds are best treated when peak growth has been achieved in mid-summer. Weeds having underground rootstocks may require a second application to control growth from buds which survived the initial application. Top growth of perennial bunch grasses may be removed by mowing prior to application and the herbicides applied after a few days. Plant residues should be raked away from the area to be treated as to expose the green foliage to the spray.
- The length of the residual control depends on the rate of application, the soil type, climatic area, weed species prevalent as well as time of application related to the germination period of the weeds concerned. Residual control is dependent on rainfall subsequent to application to leach the herbicide into the upper soil layers in order to control weed seeds in the soil.
- Rainfall within 3 hours of application may reduce foliar uptake and may necessitate a further application.
- Refer to special directions for use on canal banks under section on "**SpeciesSwitch©** and weed control on canal banks".

RECOMMENDATIONS:

1. AS A NON-SELECTIVE HERBICIDE - AT 200ℓ/HA VOLUME:

WEEDS CONTROLLED	RATE OF APPLICATION		CRITICAL COMMENTS
	Boom sprayer ℓ/ha	ℓ/20 litre knapsack calibrated at 200ℓ/ha	Use the higher rate where weeds are mature or for a longer period of control or where seasonal rainfall is over 750mm or where soil contains over 20% clay. Later season germinators may not be controlled by an application early in the growing season. Overwintering species should be spot treated to prevent seeding.
Annual Weeds (Refer To Weed List)	5 - 10	0.5 - 1	For a longer period of residual control **OOUTPACE FLOWABLE** (Reg L4769) may be used with **OUTPACE SUPER** applying from 5 - 10ℓ/ha. Consult the **OOUTPACE FLOWABLE** label in this connection.

WEEDS CONTROLLED	RATE OF APPLICATION		CRITICAL COMMENTS
Perennial Broadleaf Weeds European Verbena *(Malva Parviflora)* *(Verbena Officinalis)*	10 - 15	1 - 1.5	Trees, shrubs and hedges may be injured from root uptake if the product is applied at a dosage over 10ℓ/ha to the root zone of such plants. Do not apply over 10ℓ/ha under the entire drip area of trees to prevent injury of susceptible species.
Kweek Grass *(Cynodon Dactylon)*	20 - 25	2 - 2.5	Best results obtained from a treatment in late summer followed by a further treatment if necessary.

	Boom sprayer ℓ/ha	ℓ/20 litre knapsack calibrated at 200ℓ/ha	Use the higher rate where weeds are mature or for a longer period of control or where seasonal rainfall is over 750mm or where soil contains over 20% clay. Later season germinators may not be controlled by an application early in the growing season. Overwintering species should be spot treated to prevent seeding.
Perennial grasses Kikuyu *(Pennisetum Clandestinum)* Common Buffalo Grass *(Panicum Maximum)* Natal Red Top *(Rhynchelytrum Repens)* Love Grass *(Eragrostis Spp)* Thatch Grass *(Hyparrhenia Hirta)* Rooigras *(Themeda Triandra)* Common Paspalum *(Paspalum Dilatatum)*	10 - 15	1 - 1.5	NA

2. AS SpeciesSwitch© TREATMENT TO CONVERT A MIXED STAND OF BUNCH GRASSES TO PREDOMINANTLY *CYNODON* AND INCREASE BASAL COVER:

SPECIES CONTROLLED	RATE ℓ/HA	CRITICAL COMMENTS
Love Grass *(Eragrostis spp)* Natal Red Top *(Rhynchelytrum repens)*	10 - 15	Mow the area to a height of 200mm prior to treatment, rake residues and apply after 5 days. Alternatively apply at the early seed head stage and mow the desiccated top growth after 4 weeks to produce a neat appearance. An application in the subsequent season is required to control remaining bunch grasses, and thereafter maintenance treatments as required. The entire treated area will become desiccated prior to the recovery of *Cynodon*. Treatment at the higher rate may injure *Cynodon* especially in late summer to autumn.
Thatch Grass *(Hyparrhenia hirta)*	15	

SpeciesSwitch© and weed control on canal banks **OutPace SUPER** may be used to control weeds and for **SpeciesSwitch©** on canal banks under the following conditions:

1. Do not exceed the use of 15ℓ/ha on an overall basis as an average application. Should a second application be required in the same season do not exceed 12.5ℓ/ha. Two applications per year on any given area should not be exceeded.
2. Apply only to a canal flowing at not less that 80% of full capacity. Do not apply to an empty or near empty canal.
3. At no time should the application be made in the same direction of water flow in order to prevent a build-up of concentration in the event of over-spray occurring. Always apply in the opposite direction to the flow of the water.
4. Use approved equipment to ensure an even application to the vegetation and to prevent over spray into the canal water.
5. Inspect the entire canal system selected for treatment to determine water flow rates and possible hazards in the use of the product, and to select the correct equipment required.
6. Application is only to be made by a registered contractor approved by ENVIRO WEED CONTROL SYSTEMS, or by a suitable qualified member on the staff of the Scheme Manager also subject to approval of ENVIRO WEED CONTROL SYSTEMS.
7. The permit to undertake the weed control word and **SpeciesSwitch©** treatments is obtained from the Scheme Manager.
8. Do not place or store either full or partially used containers of **OUTPACE SUPER** on the slopes of canal banks. Under no circumstances must unused **OUTPACE SUPER** be poured into the canal or onto banks of the canal.
9. In the event of the occurrence of serious spillage of chemical into the canal, the Scheme Manager should be immediately informed so as to take precautionary measures to divert the contaminated water into a safe area.

3. FIREBREAKS:

Tracer lines and firebreaks can be created using **OUTPACE SUPER**. For tracer lines select a rate of application suited to the vegetation and apply in summer so as to create a strip up to which the firebreak can be burnt. On the fire-belt itself use a rate of **OutPace SUPER** to control the growth without denuding the entire plant cover which could cause soil erosion. Change the position of the tracer lines from time to time.

4. USE ON PAVED AND ASPHALTED AREAS:

OutPace SUPER may be used in three phases of construction:

1. **Pre-construction.**
   Where perennial runner grasses such as Kikuyu grass and Kweek grass are present on the site, these should be treated before com mencing any earthworks. Allow seven days to lapse before levelling the ground. Alternatively, level the site and treat weeds growing in the sub-base before placing the sand bed or topping. 500mℓ **OUTPACE SUPER** with water 9.5ℓ water is sufficient to treat 200m^2.
2. **Grouting phase.**
   The main weed infestation in paved areas occurs from weed seeds lodging in the joints. Apply **OutPace SUPER** to the open joints before the final grouting and water in lightly. Use 500mℓ **OUTPACE SUPER** with 9.5ℓ water for every 200m^2.
3. **Post construction treatment.**
   OUTPACE SUPER may be used to control annual and perennial weeds and grasses growing in paving and asphalted areas, as well as providing a period of residual control thereafter. Select the rate from the weeds listed in the table. As a general guide, 500mℓ **OUTPACE SUPER** with 9.5mℓ water is sufficient to treat 200m^2.

CRITICAL COMMENT:

The product may cause white staining on brickwork which could persist until the product is leached in or broken down. Certain ornamental plants may be sensitive to root uptake of the product, where the roots penetrate in the treated area. Do not apply the product under such circumstances. Avoid drift to desirable surrounding vegetation as damage could occur.

Tank Mix Combinations With Other Herbicides:

1. **TUMBLEWEED** (Reg. Nr: L4781). Where it is necessary to increase the degree of post-emergence activity at a selected dosage of **OUTPACE SUPER**, **TUMBLEWEED** may be added at 2.25 to 6ℓ/ha depending on the species to be controlled couples to the stage of development of the weeds concerned.

2. **OutPace FLOWABLE** (Reg. Nr: L4760). Where it is required to increase the level of soil residual in the treatment, **OUTPACE FLOWABLE** may be added at a suitable rate depending on the soil type and period of residuality required. The quantity to be added will depend on the basic dosage of **OUTPACE SUPER** being used. Do not exceed the following dosages per hectare.

BASIC DOSE OF OUTPACE SUPER ℓ/HA	EXTRA OUTPACE FLOWABLE NOT TO EXCEED ℓ/HA
Up to 10	18
Up to 15	10
Up to 25	7.5

Consult the product labels of each product when tank mixes are being made.

5. **FOR THE CONTROL OF A WIDE SPECTRUM OF ANNUAL WEEDS IN APPLE AND PEAR ORCHARDS (TREES OLDER THAN 3 YEARS) WHEN APPLIED AS A DIRECTED SPRAY:**
OUTPACE SUPER provides post-emergence systemic weed control through glyphosate and residual pre-emergence weed control through simazine and terbuthylazine. The weeds must be growing actively for good post-emergence control. Irrigation a few days prior to herbicide application will improve the control. Penetration of the weed canopy is important for the pre-emergence activity of simazine and terbuthylazine. If the weed canopy is too dense poor residual control may result.

APPLICATION RATES (ONLY TREES OLDER THAN 3 YEARS)		
CROP	**SOIL TYPE**	**OUTPACE SUPER/HA**
Apples	<15% clay >15% clay	6ℓ/ha 8.5ℓ/ha
Pears	<15% clay >15% clay	Not recommended. 8.5ℓ/ha

REMARKS:
1. Apply 14 days between pruning and application.
2. Mature weeds or weeds taller than 300mm may not be well controlled at the rate of 6ℓ/ha. In such situations add **TUMBLEWEED** at a rate of 1.4ℓ/ha.
3. The residual activity on grasses may not always be satisfactory, particularly where the product was applied early (July to September) and/or on light soils under conditions of heavy rainfall or irrigation.
4. Do not apply on soils with a pH in water of 7 or higher or poorly drained soils.
5. Do not apply to trees suffering from micro-nutrient deficiencies.
6. **OUTPACE SUPER** has a relatively long residual activity. Therefore do not plant any sensitive crops such as vegetables, legumes or winter cereals within 18 months after treatment.
7. Do not allow the spray to come into contact with the leaves or any green tissue of the trees.
8. Do not treat interplants before they are older than 3 years.

PARTIAL LIST OF ANNUAL WEEDS CONTROLLED WITH OUTPACE SUPER - BROADLEAF WEEDS

BOTANICAL NAME	COMMON NAME	BOTANICAL NAME	COMMON NAME
Anchusa Azurea	Ox Tongue	*Echium Lycopis*	Pattersons Curse
Amaranthus Spp.	Pigweed	*Flaveria Bidentis*	Smelter's Bush
Arctotheca Calendula	Cape Marigold	*Galinsoga Parviflora*	Gallant Soldier
Argemone Mexicana	Mexican Poppy	*Hypochoeris Radicata*	Hairy Wild Lettuce

BOTANICAL NAME	COMMON NAME	BOTANICAL NAME	COMMON NAME
Bidens Pilosa	Blackjack	*Medicago Polymorpha*	Burclover
Chamaesyce Hirta	Red Milkweed	*Oxalis Pes-Capre*	Yellow Sorrel
Chenopodium Album	White Goosefoot	*Plantago Lanceolata*	Narrow Leaf Ribwort
Chenopodium Carinatum	Green Goosefoot	*Portulaca Oleracea*	Purslane
Conyza Canadensis	Fleabane	*Raphanus Raphanistrum*	Wild Radish
Conyza Floribunda	Tall Fleabane	*Rumex Spp.*	Docks
Cosmos Bipinnatus	Cosmos	*Tagetes Minuta*	Tall Khaki Weed
Datura Stammonium	Thorn Apple		

PARTIAL LIST OF ANNUAL WEEDS CONTROLLED WITH OUTPACE SUPER - ANNUAL GRASSES

BOTANICAL NAME	COMMON NAME
Avena Fatua	Common Wild Oats
Digitaria Sanguinalis	Crab Finger-Grass
Eleusine Indica	Goose Grass
Lolium Temulentum	Darnel
Panicum Schinzii	Sweet Buffalo Grass

ACKNOWLEDGEMENTS OF TRADEMARKS:
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Matabi: Goizper S. Coop, Ltda, PO Box 211-20570, Bergara, Spain.
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