

BUNDU SC



Reg. No.: L 7517 Act /Wet No. 36 of/van 1947

A soil-applied suspension concentrate herbicide with long residual action for the control of trees and shrubs in natural pastures as well as annual and perennial broadleaf weeds and grasses in non-crop areas and industrial sites.

'n Grondtoegediende suspensie konsentraat onkruiddoder met lang nawerking vir die beheer van bome en struike in natuurlike weidings asook een- of meerjarige breëblaaronkruide en grasse in nie-gewas areas en nywerheidsgebiede.

HRAC HERBICIDE GROUP CODE:	C1+C2	HRAC ONKRUIDDODERGROEP KODE:
ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL: Bromacil (substituted uracil) / Bromasil (gesubstitueerde urasil) Tebuthiuron (urea compound) / Tebutiuron (ureum verbinding) Registration holder / Registrasiehouer: Volcano Agroscience South Africa (Pty) Ltd trading as ARYSTA LifeScience South Africa (Pty) Ltd Co. Reg. No./Mpy. Reg. Nr.: 2009/019713/07 7 Sunbury Office Park, Off Douglas Saunders Drive, La Lucia Ridge, South Africa, 4019 Tel: 031 514 5600		rasil) 250 g/ℓ
Batch No. / Lot Nr.:		
Date of manufacture: / Datum van vervaare	diging:	

U.N. No. 3082











READ THE LABEL IN DETAIL BEFORE OPENING THE CONTAINER. / LEES DIE ETIKET VOLLEDIG VOORDAT DIE HOUER OOPGEMAAK WORD.

For full particulars, see enclosed leaflet. / Vir volledige besonderhede, sien ingeslote pamflet.

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HRAC HERBICIDE GROUP CODE / HRAC ONKRUIDDODERGROEP KODE: C1 + C2

ACTIVE INGREDIENT / AKTIEWE BESTANDDEEL:

Registration holder / Registrasiehouer:

Volcano Agroscience (Pty) Ltd trading as ARYSTA LifeScience South Africa (Pty) Ltd

Co. Reg. No./Mpy. Reg. Nr.: 2009/019713/07

Units 54/55, 61 Marshall Drive, Mount Edgecombe, 4300

Tel: 031 5389700



WARNINGS

- Handle with care.
- Poisonous when swallowed.
- May irritate eyes, nose, throat and skin.
- Store unused **BUNDU SC** tightly closed in this container in a cool, well-ventilated place away from food, feed, fertilizers and consumable products.
- Keep behind lock and key and out of reach of children, animals and uninformed persons.
- Do not apply near desirable vegetation or to where their roots may extend.
- Harmful to fish and aquatic organisms.
- RE-ENTRY INTERVAL: Do not enter treated area within one day after treatment unless wearing protective clothing.

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 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 species 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 to 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 that could not have been foreseen in terms of the registration. Consult the supplier in the event of any uncertainty.

PRECAUTIONS

- Do not inhale fumes or spray mist.
- Avoid contact with eyes, skin and clothing.
- Wear protective clothing (face shield, rubber gloves and boots) when handling the concentrate and when preparing and applying the spray mixture.
- Wash and change contaminated clothing daily.
- Wash with soap and water after handling and application or after accidental contact with the skin.
- Do not eat, drink or smoke whilst mixing or applying the remedy, but wash hands and face thoroughly before doing so.
- Prevent contamination of food, eating utensils and drinking water.
- Avoid drift or spray onto crops, grazing, rivers, dams, wetlands and any area not under treatment.
 Do not apply where run-off from the treated area will contaminate water or within 10 metres of permanent water.

- Do not mix, load or clean spraying equipment within 20 metres of any body of water, well or fountain unless on an impervious pad to prevent groundwater contamination. Prevent groundwater contamination through back siphoning when filling spray tank by means of an anti-siphoning device or an air break between water hose and spray tank contents.
- Dispose of wash water where it will not contaminate crops, grazing, rivers and dams.
- Do not apply on, within 50 m or within the root zone of desirable plants or trees (such as windbreaks, ornamental trees or shrubs along roads) or on areas whereto their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots since such plants may be killed or severely damaged.
- Do not use on soils where susceptible crops are to be grown within five years.
 Over-application or any use not in accordance with the directions on this label may lead to off-target and/or environmental damage.
- Clean all measuring utensils and application equipment thoroughly after use and before using it to apply any other remedy to avoid injury to desirable pants. Immediately following application, drain spray equipment. Thoroughly rinse sprayer and flush the hoses, boom and nozzles with clean water. Loosen and physically remove visible deposits. Remove and clean nozzles, screens and strainers. Flush the entire system with clean water. Clean all other associated application equipment. Dispose of such wash water responsibly to prevent contamination of the environment and water sources.

Container disposal:

- Allow at least 30 seconds of drainage of empty container over the spray tank before rinsing the
 empty container three times with a volume of water equal to at least one tenth (10 %) of that of the
 container. Add the rinsings to the spray tank before destroying the container in the prescribed
 manner.
- Destroy the empty container by perforation and flattening after use of the product and never re-use the empty container for any other purpose.
- Dispose of in approved landfill or preferably in a pesticide incinerator.

SYMPTOMS OF HUMAN POISONING:

POISONING SIGHNS AND SYMPTOMS: Not known. No cases of human poisoning have been reported.

SKIN CONTACT: Hardly irritating. Remove contaminated clothing. Wash affected areas with water and soap.

EYE CONTACT: Hardly irritating. Wash with clean water for at least 15 minutes and get medical attention.

INGESTION: Remove by gastric lavage and catharsis, but not if patient is unconscious.

INHALATION: Remove from exposure area to fresh air. If breathing has stopped perform artificial respiration.

EMERGENCY ANTIDOTE: Not known

MEDICAL ADVICE: Treat symptomatically and supportively.

RESISTANCE WARNING

For resistance management, **BUNDU SC** is an HRAC group code C1 + C 2 herbicide. Any weed population may contain individuals naturally resistant to **BUNDU SC** and other group code C1 + C 2 herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **BUNDU SC** or any other group code C1 + C2 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.

A. Trees and shrubs:

- **BUNDU SC** is a herbicide with long residual action. The degree of control and duration of effect will depend on the dosage rate, rainfall and soil type.
- **BUNDU SC**, diluted for use, is non-corrosive, non-volatile and non-flammable.
- **BUNDU SC** treatments will only become effective after sufficient rain has fallen to leach the product into the root zone for uptake. Application just prior to or during the rainy season is therefore always recommended. Do not apply at the end of the rainy season (later than March).
- **BUNDU SC** is slow acting and plants may take up to 24 months to die, depending on species, soil type and rainfall. During this period treated plants will show repeated defoliation and regrowth with progressive dieback until death occurs. For this reason a second application is not recommended within 24 months or until symptoms of defoliation no longer occur.
- Under conditions of abnormally high rainfall, extraordinary leaching of the product may occur, resulting in varying degrees of product loss and reduced efficacy. BUNDU SC may cause injury to grasses in the treated area but these will recover and proliferate as tree and shrub competition is removed and the product leaches deeper into the soil. Heavy rainfall may increase lateral movement of the topsoil, to which bundu sc attaches itself, thus causing off-target damage to grasses.

METHOD OF APPLICATION

- For ease of application the use of an automatic vaccinator or similar applicator is recommended.
- Applicators having a reasonable squirting distance (1 2 metres) greatly facilitate ease of application in areas densely populated with the target species.
- The applicator should be calibrated to deliver a 2 m² per single dose.
- Using the mixtures indicated below determined by the species and soil type apply one or more doses to the soil at the base of the target plant.
- Do not apply onto the stem of the plant or on grass and/or dead leaves at the base of the stem – apply directly onto the soil at a recommended distance of 15 – 30 cm from the base of the stem.
- When more than one dose is applied, position these evenly around the base of the stem.

B. Industrial weed control:

- Do not apply on, within 50 m or within the root zone of desirable plants or trees (such as windbreaks, ornamental trees or shrubs along roads) or on areas whereto their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots since such plants may be killed or severely damaged.
- **BUNDU SC** is a herbicide with long residual action, capable of controlling a broad range of annual, perennial and woody weeds when applied broad cast and at high rates.
- It should be applied prior to or during the period of active growth of weeds.
- The chemical is mainly absorbed by the roots of grasses and broadleaf weeds and water (rain) is required to carry the chemical down to the root zone of target plants.
- Effects of **BUNDU SC** on existing weeds are slow to appear and several weeks may be required for maximum effect to become visible. The degree of control and duration of effect will depend on the dosage rate, rainfall and soil type, etc.
- In the case of a dense growth of established broadleaf weeds and grasses, the herbicidal action may be speeded up by tank-mixing **BUNDU SC** with a suitable foliar absorbed herbicide such as Volcano **GLYPHOSATE 500 WSG** or **SPRINGBOK** prior to application.
- **BUNDU SC** is mixed with water and applied onto the target area in a uniform spray pattern at a rate of 150 600 litres per hectare.

- Before application accurately calibrate spray equipment to determine the exact quantity of water delivered per ha.
- Use flat fan type spray nozzles for application.
- Keep the chemical in continuous suspension by means of proper agitation.
- **BUNDU SC**, diluted for use, is non-corrosive, non-volatile and non-flammable.
- Consult Table B under <u>DOSAGE RATES FOR APPLICATION</u> for the recommended application rates with regards to industrial weed control.

Mixing instructions:

- The mixture to be used will depend on the species to be treated.
- Refer to DOSAGE RATES below to select the correct mixture.
- Mix as follows: Empty the entire quantity of BUNDU SC to be prepared into a suitable container.
 Add a little clean water and stir thoroughly into a smooth cream. Then add the rest of the clean water while stirring constantly until a lump-free suspension is obtained.
- Agitate the mixture thoroughly before pouring suspension into the applicator tank and before refilling. Shake the tank frequently to keep the mixture in suspension while application is in progress.

DOSAGE RATES FOR APPLICATION

A. Trees and shrubs:

Important: The dosage rates recommended below are for soils with a clay content of 10 - 40 %. Consult your supplier regarding applications on very shallow or gravely soil. For soils containing less than 10% clay, consult your supplier.

Table A - Trees and shrubs:

Target species Common name		BUNDU SC / water mixture	Number of dosages (2 mℓ) based on tree height	
	Common name		Seedlings (up to 0,5m tall)	Trees higher than 0,5 m
Acacia erubescens	Blue thorn			
Acacia karroo Acacia mellifera Acacia nigrescens Acacia nilotica Acacia tenuispina Acacia tortilis * Colophospermum mopane Dichrostachys cinerea Terminalis prunoides ** Grewia bicolor Grewia flava Dodonaea angustifolia *** Terminalia sericea	Sweet thorn Black thorn Knob thorn Scented thorn "Fyndoring" Umbrella thorn Mopane Sickle bush Purple pod terminolia White raisin Brandy bush Sand olive Silver cluster leaf	1,5 ℓ BUNDU SC plus 8,5 ℓ water	1*	Apply one additional dose for every 0, 5 m increase in tree height, e.g.: •0,5 - 1 m =1 - 2 dosages, •1 - 2 m = 3 - 4 dosages, etc. •Do not exceed 8 doses per tree where trees are growing in relatively close proximity (less than 2 – 3 m apart).

- Multi-stemmed seedlings up to 0,5 m may require 2 dosages for adequate control.
- * Variable results on sandy soils.
- ** Multi-stemmed plants need one dose per main stem of 20 mm or more.

*** Not recommended on soils with less than 10 % clay.

Notes:

- Multi-stemmed trees require a higher rate of application than single stemmed trees. For multistemmed trees, apply up to double the number of doses than would be required for a single stemmed specimen of similar height.
- Solitary large trees may require a higher dose than those growing in close proximity. Apply up to double the number of recommended doses.
- Trees coppicing after cutting or due to injury caused by fire, does not display its original (true) height. Consult your supplier to for advice in such cases.
- Depending on weather conditions, thoroughness and accuracy of application, etc., follow-up applications may be necessary after 24 months or once defoliation symptoms no longer occur.

B. Industrial weed control:

Along roads, railway lines and security fences, under power lines, in storage- and railway yards, etc. **Table B – Industrial weed control:**

Soil type (% Clay content) / weed situation	BUNDU SC (ℓ per hectare)	Spot treatment (BUNDU SC per 100 m²)	Remarks
Sandy soil & loamy sand (up to 20 % clay) and or annual weeds	8 – 12 l	100 mℓ	
Sandy loam (21 – 35 % clay) and or annual weeds	12 – 16 ℓ	120 ml	NOTE:
Sandy soil & loamy sand (up to 20 % clay) and or perennial grasses	12 – 16 ℓ	140 ml	Use the higher rate on each soil type where well established, fully developed weeds, are
Sandy loam (21 – 35 % clay) and or perennial grasses	16 - 24 ℓ	200 ml	treated.
Sandy clay loam (above 35 % clay) and ash	24 ℓ	240 ml	

WEEDS NORMALLY CONTROLLED:

Broadleaf weeds:

Scientific name:	Common name:
Acanthospermum australe	Eight-seeded prostrate starbur
Alternanthera pungens	Khaki bur weed
Amaranthus deflexus	Perennial pigweed
Amaranthus hybridus	Common pigweed
Amaranthus spinosus	Thorny pigweed
Arctotheca calendula	Cape marigold
Argemone mexicana	Yellow-flowered Mexican poppy
Aristea africana	Maagbush
Babiana stricta	Little baboon
Bidens bipinnata	Spanish blackjack
Bidens pilosa	Blackjack
Boerhavia erecta	Upright boerhavia
Chamaesyce hirta	Red milkweed
Chamaesyce inaequilatera	Smooth creeping milkweed
Convolvulus farinosus	Field bindweed
Conyza canadensis	Canadian fleabane
Conyza bonariensis	Horseweed fleabane
Conyza sumatrensis	Tall fleabane

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Broadleaf weeds: - Continue

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Scientific name:	Common name:
Cotula tenella	Cotula
Cyanella lutea	Five fingers
Datura stramonium	Thorn apple
Drosanthermum hispidum	Vygie
Erodium moschatum	Musk Heron's bill
Felicia muricate	Wild aster
Flaveria bidentis	Smelter's bush
Galenia secunda	Vanwyksbush
Galinsoga parviflora	Gallant soldier
Gazania krebsiana	Butterflower (marigold)
Hibiscus trionum	Bladder hybiscus
Hypochoeris glabra	Smooth cat's ear
Hypochoeris radicata	Hairy wild lettuce
Inula graveolens	Camphor inula
Ipomoea purpurea	Common morning glory
Lepidium bonariense	Pepper cress
Medicago polymorpha	Bur clover
Melilotus indica	Annual yellow sweet clover
Monopsis lutea	-
Oenothera indecora	Evening primrose
Oenothera laciniata	Evening primrose
Oenothera tetraptera	White evening primrose
Oxalis corniculata	Creeping sorrel
Oxalis luteola	Pink sorrel
Oxalis pes-caprae	Yellow sorrel
Oxalis polyphylla	Finger sorrel
Pelargonium capitatum	Wild pelargonium
Pentzia globosa	Bitter karoo
Pentzia pilufera	Cattle bush
Pentzia suffruticosa	Karoobush
Portulaca oleracea	Purslane
Prenia spp.	Vygie
Psilocaulon rogersiae	Ashbush vygie
Ruschia cononotata	Cattle vygie
Salvia verbenaca	Salvia
Schkuhria pinnata	Dwarf marigold
Senecio consanguineus	Starvation senecio
Sida cordifolia	Heartleaf sida
Sida rhombifolia	Arrowleaf sida
Sonchus oleraceus	Sow thistle
Tagetes minuta	Khaki weed
Taraxacum officinale	Common dandelion
Tribulus terrestris	Dubbeltjie
Tridax procumbens	Aster
Salsola kali	Russian tumbleweed
Gaisola kali	างนออเลท เนเทมเฉพออน

Grasses:

Scientific name:	Common name:
Aristida adscensionis	Three-awn (seedlings)
Brachiaha eruciformis	Sweet signal grass
Bromus diandrus	Ripgut brome
Bromus japonicus	Japanese brome
Bromus unioloides	Rescue grass
Cenchus incertus	Mat sand bur
Chloris gayana	Rhodes grass (seedlings)
Chloris pycnothrix	Spiderweb chloris
Chloris virgata	Feathertop chloris (seedlings)
Cynodon dactylon	Common couch
Cynodon plectostachyus	Giant stargrass
Cyperus esculentus	Yellow nutsedge
Digitaria ciliaris	Tropical fingergrass
Digitaria sangumalis	Crab finger grass
Echinochfoa colona	Marsh grass
Ehrharta calycina	Polgrass
Eleusine indica	Goose grass
Eragrostis fehmanniana	Vleigrass (seedlings)
Eragrostis plana	Old land grass
Eragrostis trichophora	Love grass (seedlings)
Enneapogon cenchroides	Fur grass (seedlings)
Eustachys paspaloides	Brown fingergrass (seedlings)
Ficinia filiformis	Stargrass
Ficinia indica	Stargrass
Hordeum muhnum	Wild barley
Hyparrhenia hirta	Common thatching grass
Imperata cylindrica	Silver spike
Isolepis antarctica	Sedge
Laslochloa longifolia	Haregrass
Lolium multiflorum	Italian ryegrass
Panicum schinzii	Sweet buffalo grass
Panicum maximum	Common buffalo grass
Paspalum paspalodes	Couch paspalum
Pentaschistis thunbergii	Dune grass
Rynchelytrum repens	Natal red-top
Setaria pallide-fusca	Red bristle grass
Sorghum bicolor subsp. arundinaceum	Common wild sorghum (seedlings)
Sporobolus spp.	Vleigrass (seedlings)
Tragus racemosus	Large carrotseed grass
Urochloa panicoides	Herringbone grass (seedlings)

ACKNOWLEDGEMENT OF TRADE MARKS

Glyphosate 500 WSG	Reg. No. (L7119)	Volcano Agroscience (Pty) Ltd
Springbok	Rea. No. (L6719)	Volcano Agroscience (Pty) Ltd