

SULTAN[®] 50 SC




Reg. no. L6892 Act/Wet 36 of/van 1947
N-AR 0912

**READ THE LABEL BEFORE USE
KEEP OUT OF REACH OF CHILDREN AND ANIMALS**

GROUP	K3	HERBICIDE
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<p>A suspension concentrate herbicide for the pre-emergence control of annual grasses, certain broadleaf weeds and, under favourable conditions, yellow nutsedge in crops as indicated.</p>	<p>'n Suspensiekonsentraat vooropkomsonkruid-doder vir die beheer van eenjarige grasse, sekere breëblaaronkruiden en, onder gunstige toestande, geeluintjies in gewasse soos aangedui.</p>
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 <p>WARNING</p>	<p>Harmful if swallowed. May cause an allergic skin reaction. Suspected of causing cancer. Very toxic to aquatic life with long lasting effects.</p> <p>Wear protective gloves, protective clothing, eye protection and face protection. Do not eat, drink or smoke when using this product.</p>
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ACTIVE INGREDIENT/AKTIEWE BESTANDEEL

metazachlor (acetanilide) 500 g/L metazachlor (asetanilied)

NET VOLUME/NETTO VOLUME

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REGISTRATION HOLDER/REGISTRASIEHOUER

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UN no.:3082

EMERGENCY NUMBERS:

Griffon Poison Information Centre: +27 82 446 8946
Tygerberg Poison Information Centre: +27 861 555 777

Batch number	Lotnommer
Date of Manufacture	Datum van Vervaardiging
Expiry date	Vervaldatum

WARNINGS

- Harmful if swallowed.
 - May cause an allergic skin reaction.
 - Suspected of causing cancer.
 - Very toxic to aquatic life with long lasting effects.
- May cause eye irritation in sensitive individuals.
 - Store in a cool, dry place away from food, feed and other agricultural chemicals.
 - Re-entry: Do not enter treated area within 1 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 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 humans 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 which could not have been foreseen in terms of the registration. Consult the supplier in the event of any uncertainty.

PRECAUTIONS

- Keep out of reach of children.
- Obtain, read and follow all safety instructions before reuse.
- Avoid breathing dust/fume/gas/mist/vapors/spray.
- Avoid release to the environment.
- Do not eat, drink or smoke when using this product.
- Wash face, hands and any exposed skin thoroughly after handling.
- Wear protective gloves, protective clothing, eye protection and face protection.
- Contaminated work clothing should not be allowed out of the workplace.
- Take off contaminated clothing and wash it before reuse.
- If exposed or concerned get medical advice.
- IF SWALLOWED: Get medical help.
- Rinse mouth.
- IF ON SKIN: Wash with plenty of soap and water.
- If skin irritation or rash occurs get medical help.
- Specific treatment (see supplemental first aid instructions on this label).
- Collect spillage.

- Store locked up.
- Dispose of contents/container to an approved waste disposal plant.

- Prevent contamination of food, feed, drinking water and eating utensils.
- 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 container three times with a volume of water of at least 10% of that of the container and add the rinsings to the content of the spray tank before destroying the empty container.
- While spraying, avoid contact with the spray as much as you can. Avoid spray drift onto other crops, grazing, rivers or dams.
- Clean applicator thoroughly after use and dispose of wash water where it will not contaminate crops, grazing, rivers or dams.
- Destroy empty container and do not use for any other purpose.

RELEVANT SUBSTANCES

Chemical name	w/w %	CAS no.
Metazachlor (ISO)	30 – 60%	67129-08-2
Poly(oxy-1,2-ethanediyl),alpha.-[tris(1-phenylethyl)phenyl]-.omega.-hydroxy	<10%	99734-09-5

FIRST AID

In case of accident or unwellness, seek medical advice immediately. Provide this label and SDS to medical personnel for treatment. Emergency personnel should wear protective clothing appropriate to the type and degree of contamination.

Immediately remove contaminated clothing and remove the affected person from the contamination area. Keep the person warm, calm and covered up. First Aid personnel should pay attention to their own safety.

Take the container label or product name with you when seeking medical attention.

Eye contact: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Skin contact: Remove all contaminated clothing and shoes. Wash the skin immediately with plenty of water for 15 to 20 minutes under the safety shower. Consult a physician if necessary.

Inhalation: Immediately remove the affected victim from exposure to an area with fresh air. If breathing is difficult have qualified personnel administer oxygen. If breathing has stopped, administer artificial respiration. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician.

Ingestion: Call a poison control center or medical practitioner immediately for treatment advice. If conscious, rinse mouth thoroughly with water. Never give anything by mouth to an unconscious or

convulsing person. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomit, rinse mouth and administer more water. Get medical attention immediately if symptoms occur.

TOXICOLOGICAL INFORMATION

Antidotes

None known. Treat symptomatically.

Symptoms of human poisoning

None known.

NOTICE TO THE USER: This agricultural remedy is to be used only according to the directions of this label. It is an offense under the Act to use this product inconsistent with the directions on the label.

RESISTANCE WARNING

For resistance management, **SULTAN® 50 SC** is classified as a group code K3 herbicide. Any population of a specific weed may contain individuals which have a natural resistance against **SULTAN® 50 SC** or other group code K3 herbicides. If these herbicides are used repeatedly the resistant individuals can eventually dominate the weed population. These resistant weeds will probably not be controlled by **SULTAN® 50 SC** or any other group code K3 herbicide.

To delay the occurrence of resistance:

- Avoid the repeated exclusive use of herbicides in the same group code. Alternate with or tank mix with herbicides from other group codes.
- Integrate with other methods of control (chemical, biological and cultural) in weed control programmes

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

MODE OF ACTION

K3: Inhibition of very long-chain fatty acid synthesis.

USE RESTRICTIONS

General

- **SULTAN® 50 SC** can damage crops on which it is registered under the following conditions:
- Application on poorly drained soils or soils with a compaction layer which may lead to water logging.
- Prolonged periods of cold, wet conditions or any other condition that put crop plants under stress.
- Inbred parent lines or newly released cultivars. Consult your supplier in case of any uncertainty.

- If **SULTAN® 50 SC** is used in tank mixtures with other products, the labels of those products should be studied carefully and all the conditions as stated on those labels should be adhered to.

Crop-specific conditions

SULTAN® 50 SC can only be used pre-emergence of weeds in broccoli, cabbage, dry beans, groundnuts, potatoes, soybeans and tobacco. In forestry and sugar-cane it can be used pre-emergence as well as early post-emergence.

Dry beans and soybeans

- **SULTAN® 50 SC** must not be applied pre-emergence in dry beans and soybeans on soils with a clay percentage of less than 15%. It can, however, be applied on dry beans as a post-emergence split application on soils with a clay percentage of more than 10%. See directions for use for full details.
- Only disease-free seed treated with a suitable registered seed treatment product, should be planted. Soils with high levels of soil borne diseases should be avoided.

Tobacco

- **SULTAN® 50 SC** must not be applied to soils with less than 15% clay.
- Only strong, actively growing plants without any diseases should be transplanted.
- The roots of the transplants must not come into contact with **SULTAN® 50 SC** or soil treated with it. Special care should be taken that the roots of young implants do not come into contact with treated soil.
- Heavy rain after application of **SULTAN® 50 SC** in tobacco planted on gravelly soils may cause leaching of the chemical to the root zone which can lead to damage of the plants.
- An untreated strip, 100 mm on either side of the tobacco plants should be left on the ridge. A registered post-emergent graminicide can be used to control grasses on the untreated strip.

DIRECTIONS FOR USE

Use only as indicated.

Compatibility

SULTAN® 50 SC is compatible with products such as AMETREX® 500 SC (Reg. no L4656), ATRANEX® 500 SC (Reg. no L5352), DIUREX® 800 SC (Reg. no L5334), GALIGAN® 240 EC (Reg. no L5782), SUPRANEX 600 SC (Reg. no L5351), PARAQUAT and the parathyroid insecticides.

It is advisable, however, to do a compatibility test prior to application.

Mixing instructions

Shake the **SULTAN® 50 SC** container well before opening. Half fill the spray tank with water and add the required volume of **SULTAN® 50 SC** to the tank while agitating. Fill the spray tank with water.

It is important that agitation is kept up during mixing and application. Prepare only sufficient spray mixture for immediate use. Do not keep spray mixture overnight.

When **SULTAN® 50 SC** is used in a tank mixture with other products as indicated in the application tables, the other product must be added first. The spray tank is then filled to almost capacity before the **SULTAN® 50 SC** is added to the spray tank.

The only exception is where **SULTAN® 50 SC** is tank mixed with **GALIGAN® 240 EC** where **SULTAN® 50 SC** is added to the half-filled spray tank first and the **GALIGAN® 240 EC** is only added when the spray tank is almost filled with water.

APPLICATION

SULTAN® 50 SC can be applied by means of any suitable medium to high volume boom spray fitted with an efficient agitation system. The sprayer must be correctly calibrated to deliver at least 200 ℓ spray mixture/ha. Application should be done preferably during plant or just after plant but definitely within 5 days after the last soil cultivation. The seedbed must be free of existing weeds, fine, and firm and without excessive plant rests. Rain or irrigation of at least 10–20 mm is necessary to leach the **SULTAN® 50 SC** into the soil before the weeds start to germinate. If it does not rain and weeds start to germinate, a shallow cultivation of 10–20 mm deep can be done to destroy the existing weeds and to incorporate the **SULTAN® 50 SC** into the soil.

Control of yellow nutsedge (*Cyperus esculentus*)

The control of yellow nutsedge can be improved by adhering to the following conditions:

- The plant process must be preceded by a deep cultivation with a mould-board plough.
- An even, fine and firm seedbed must be prepared.
- Application of the herbicide should be done within 7–10 days followed by 10–20 mm rain or irrigation before germination of yellow nutsedge, to leach the herbicide into the soil.
- Yellow nutsedge and other weeds already present at time of application will not be controlled.
- **SULTAN® 50 SC** should be applied during early spring for optimal control of yellow nutsedge.

APPLICATION RATES

CROP	% CLAY	DOSAGE (L/ha)	REMARKS
Broccoli	0–10	0.8	Apply overall, preferably immediately, but not later than 5 days after transplant on a weed free seedbed. Only strong, healthy plants should be planted.
	11–20	1.0	
	21–30	1.2	
	31–40	1.6	
	> 40	2.0	
Cabbage	0–10	0.8	Apply overall, preferably immediately, but not later than 5 days after transplant on a weed free seedbed. Only strong, healthy plants should be planted.
	11–20	1.0	
	21–30	1.2	



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CROP	% CLAY	DOSAGE (L/ha)	REMARKS
	31–40 > 40	1.6 2.0	
Dry beans	0– 10 11–15 16–20 21–30 31–35 36–40 > 40	Single application Not recommended Not recommended 0.8 1.0 1.2 1.2 1.4	It is important to note that SULTAN® 50 SC is not recommended on soils with a clay content of less than 15% as a single pre-emergence application in dry beans. Apply immediately after planting before the germinating beans crack the soil. Only viable seed treated with a registered seed treatment should be used.
	0–10 11–20 21–30 31–35 36–40 > 40	Split application Not recommended 0 + 0.45 0.55 + 0.50 0.70 + 0.60 0.85 + 0.60 1.0 + 0.80	Apply the first split application as described above. Apply the second application as a directed spray after the last cultivation and pre-emergence of weeds. It is important to note that a post-emergence application can only be done at a soil clay percentage of 11–20.
Groundnuts	0–10 11–20 21–30 31–35 36–40	0.75 1.0 1.2 1.3–1.6 1.4–1.6	Apply directly after planting and before the groundnuts crack the soil. SULTAN® 50 SC must not be applied post-emergence in groundnuts. Use the higher rates on heavier soils for improved control of yellow nutsedge. Use only viable seed that was treated with a registered seed treatment.
Potatoes	0–10 11–20 21–30 31–35 36–40 0–10 11–20	Single application 0.75 1.0 1.2 1.3–1.6 1.4–1.6 Split application 0.45 + 0.30 0.60 + 0.40	Apply immediately after plant or after ridging before any weeds have germinated. For improved control of broadleaf weeds, METRIBUZIN 480 SC formulations can be used at 1.1 L/ha in a tank mix with SULTAN® 50 SC . The use restrictions of METRIBUZIN should be adhered to. Use the higher rates on heavier soils for improved control of yellow nutsedge. Apply the first application pre-emergence as described above. The second application should be done on a weed free surface after the last ridging operation, preferably as a directed spray



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CROP	% CLAY	DOSAGE (L/ha)	REMARKS
	21–30 31–35 36–40	0.75 + 0.45 0.85 + 0.60 1.0 + 0.60	to avoid the screening off of the spray by the foliage.
Soybeans	0– 10 11–15 16–20 21–30 31–40 > 40	Not recommended Not recommended 0.8 1.0 1.2 1.4	SULTAN® 50 SC is not recommended on soils with a clay content of less than 15%. Apply immediately after planting but before the soil is cracked by the soybeans. Only viable seed treated with a registered seed treatment should be planted.
Tobacco	0–10 11–15 16–20 21–30 31–35 36–40 > 40	Not recommended Not recommended 1.0 1.2 1.4 1.6 1.9	SULTAN® 50 SC is not recommended on soils with a clay content of less than 15%. Note the conditions on tobacco as is described above under crops specific conditions. Do not apply directly over the transplants.

APPLICATION RATES OF SULTAN® 50 SC IN TANK MIXES WITH OTHER PRODUCTS

Forestry

CROP	DOSAGE (L/ha)	REMARKS
Transplanted <i>Eucalyptus</i> and Pine (<i>Pinus spp.</i>) trees.	1.6 L SULTAN® 50 SC plus 2.0 L GALIGAN® 240 EC.	Apply preferably as a directed spray, pre-emergence or early post-emergence to transplanted <i>Eucalyptus</i> or pine trees. When SULTAN® 50 SC is used in a tank mix with GALIGAN® 240 EC as an early post-emergence application, the weeds must be young and actively growing. Established weeds will not be controlled. Some scorch may occur on <i>Eucalyptus</i> if the spray mixture is sprayed directly over the trees. These symptoms will disappear soon and will have no effect on the growth and development of the trees.



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Sugarcane

PLANT OR RATOON CANE	PRODUCT COMBINATIONS	% CLAY	DOSAGE (L/HA)	REMARKS
Plant and ratoon cane Pre-emergence of weeds	SULTAN® 50 SC	11–35 > 35	1.5 2.0	SULTAN® 50 SC or combinations thereof is not recommended on soils with a clay content of less than 10%.
	SULTAN® 50 SC + DIUREX® 800 SC	11–35 > 35	1.5 + 3.0 2.0 + 3.0	For full details on DIUREX® 800 SC , consult the label.
	SULTAN® 50 SC + ATRANEX® 500 SC	11–35 > 35	1.5 + 2.0 2.0 + 3.0	For full details on ATRANEX® 500 SC , consult the label.
Plant and ratoon cane Early post-emergence of weeds	SULTAN® 50 SC + AMETREX® 500 SC	11–35 > 35	1.5 + 3.0-6.0 2.0 + 3.0-6.0	The application rate of AMETREX® 500 SC will depend on weed size and weed pressure. Consult the AMETREX® 500 SC label for full details. To improve the post-emergence control, a suitable adjuvant should be added.
Plant cane only Early post-emergence of weeds	SULTAN® 50 SC + AMETREX 500 SC + PARAQUAT 200 SL	11–35 > 35	1.5 + 3.0-4.0 + 1.0 2.0 + 3.0-4.0 + 1.0	The application rate of AMETREX® 500 SC will depend on weed size and weed pressure. Consult the AMETREX® 500 SC and PARAQUAT labels for full details. Apply as a directed inter row application as this application can cause serious necrosis on sugar-cane. The addition of a suitable adjuvant is recommended.

PLANT OR RATOON CANE	PRODUCT COMBINATIONS	% CLAY	DOSAGE (L/HA)	REMARKS
	SULTAN® 50 SC + DIUREX® 800 SC + PARAQUAT 200 SL	11–35 > 35	1.5 + 3.0 + 1.5 2.0 + 3.0 + 1.5	Consult the DIUREX® 800 SC and PARAQUAT labels for full details. Apply as a directed inter row application as it can cause serious necrosis on sugar-cane. The addition of a suitable adjuvant is recommended.

WEED SPECTRUM

The following weeds are normally controlled by **SULTAN® 50 SC** at the rates as indicated in the application tables.

Grass weeds

BOTANICAL NAME	COMMON NAME
<i>Brachiaria eruciformis</i>	Sweet signal grass
<i>Chloris virgata</i>	Feathertop Chloris
<i>Digitaria sanguinalis</i>	Crab finger-grass
<i>Digitaria ciliaris</i>	Tropical finger-grass
<i>Eleusine indica</i>	Goose grass
<i>Echinochloa crus-galli</i>	Barnyard grass
<i>Lolium temulentum</i>	Darnel
<i>Panicum maximum</i>	Common buffalo grass
<i>Panicum shinzii</i>	Sweet buffalo grass
<i>Setaria pallide-fusca</i>	Red bristle grass
<i>Setaria verticillata</i>	Stickey bristle grass
<i>Urochloa panicoides</i>	Herringbone grass

Broadleaf weeds

BOTANICAL NAME	COMMON NAME
<i>Amaranthus deflexus</i>	Perennial pigweed
<i>Amaranthus hybridus</i>	Cape pigweed
<i>Amaranthus spinosus</i>	Thorny pigweed
<i>Chenopodium album</i>	White goosefoot
<i>Chenopodium carinatum</i>	Green goosefoot
<i>Galingsoga parviflora</i>	Gallant soldier
<i>Nicandra physaloides</i>	Apple-of-Peru
<i>Portulaca oleracea</i>	Purslane
<i>Richardia brasiliensis</i>	Tropical Richardia
<i>Solanum nigrum</i>	Deadly nightshade

The following weeds are controlled initially early in the season:

BOTANICAL NAME	COMMON NAME
<i>Acanthospermum hispidum</i>	Upright starbur
<i>Commelina benghalensis</i>	Bengal wandering Jew
<i>Tagetes minuta</i>	Khaki weed

The following weeds will only be controlled under optimum conditions:

BOTANICAL NAME	COMMON NAME
<i>Bidens pilosa</i>	Spanish black jack
<i>Cyperus esculentus</i>	Yellow nutsedge
<i>Schkuhria pinnata</i>	Dwarf marigold

NOTE: For the control of additional weeds where **SULTAN® 50 SC** is tank mixed with other products, please refer to the weed spectrum on the label of the specific product.