SULTAN® 50 SC

ADAMA

HERBICIDE

Suspension concentrate

MAPP 16680

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Ingredients

- Metazachlor ..... 500g/l (44.3% w/w)

Crops

A residual herbicide for the pre- and post-emergence control of various weeds in oilseed rape, brassicas, ornamental plant production and nursery fruit trees.

Warning

Harmful if swallowed.
May cause an allergic skin reaction.
Suspected of causing cancer.
Very toxic to aquatic life with long lasting effects.
Keep out of reach of children.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing.
IF ON SKIN: Wash with plenty of soap and water.
Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous wastes.

To avoid risks to human health and the environment, comply with the instructions for use.



Scan for Safety Data Sheet

Or use the weblink : https://bit.ly/49l0aKp Alternatively, contact your supplier.

OSR Herbicides? Think Water

SHAKE WELL BEFORE USE

The Voluntary Initiative

R3.2.4 Nov 23

This label is compliant with the Voluntary Initiative Guidance.

NO VARNISH AREA

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SAMPLE

SULTAN® 50 SC

ADAMA

HERBICIDE | **Suspension concentrate** | **MAPP 16680**

PROTECT FROM FROST **SHAKE WELL BEFORE USE**

GROUP 15 HERBICIDE

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SAFETY PRECAUTIONS

Operator Protection

Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when handling the concentrate. WEAR SUITABLE PROTECTIVE GLOVES when handling contaminated surfaces or applying by hand-held equipment.

However, engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.

WASH CONCENTRATE FROM skin or eyes immediately. DO NOT BREATHE SPRAY.

WASH HANDS AND EXPOSED SKIN before meals and after work.

IF YOU FEEL UNWELL seek medical advice (show label where possible).

Environmental Protection

KEEP LIVESTOCK out of treated areas until poisonous weeds, such as ragwort, have died and become unpalatable.

Extreme care must be taken to avoid spray drift onto non-crop plants outside of the target area.

Do not contaminate water with the product or its container. Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads.

To protect aquatic organisms, respect an unsprayed buffer zone to surface water bodies in line with LERAP requirements.

DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5m of the top of the bank of a static or flowing water body, unless a Local Environmental Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 1m of the top of a ditch which is dry at the time of application.

DO NOT ALLOW DIRECT SPRAY from hand-held sprayers to fall within 1m of the top of the bank of a static or flowing water body. Aim spray away from water.

This product qualifies for inclusion within the Local Environmental Risk Assessment for Pesticides (LERAP) scheme. Before each spraying operation from a horizontal boom sprayer, either a LERAP must be carried out in accordance with HSE's published guidance or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for three years.

Storage and Disposal

KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.

RINSE CONTAINER THOROUGHLY by using an integrated pressure rinsing device or manually rinsing three times. Add washings to sprayer at time of filling and dispose of safely. DO NOT RE-USE CONTAINER for any purpose.

The (COSHH) Control of Substances Hazardous to Health Regulations may apply to the use of this product at work

For advice on medical emergencies, fires or major spills telephone the National Chemical Emergency Centre on 01865 407333.

IMPORTANT INFORMATION

FOR PROFESSIONAL USE ONLY AS AN AGRICULTURAL/HORTICULTURAL HERBICIDE

Crops: Winter & spring oilseed rape, broccoli, Brussels sprouts, cabbage, calabrese and cauliflower, ornamental plant production, nursery fruit trees.

Maximum individual dose; maximum total dose; maximum number of treatments; latest time of application and other specific restrictions:full details are given in the information box within the leaflet attached to the product.

READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS.

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Warning

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May cause an allergic skin reaction.
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Keep out of reach of children.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing.
IF ON SKIN: Wash with plenty of soap and water.
Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous wastes.

To avoid risks to human health and the environment, comply with the instructions for use.

SAMPLE

This leaflet/booklet is part of the approved label.

SULTAN® 50 SC is a suspension concentrate formulation containing 500 g/l (44.3% w/w) metazachlor. It is a residual herbicide for the pre- and post-emergence control of various weeds in oilseed rape, brassicas, ornamental plant production and nursery fruit trees.

IMPORTANT INFORMATION FOR PROFESSIONAL USE ONLY AS AN AGRICULTURAL/HORTICULTURAL HERBICIDE					
Crop	**Maximum individual dose (litres product/ha)**	**Maximum total dose (litres product/ha)**	**Maximum no. of treatments (per crop)**	**Latest time of application**	**Buffer zone distance (metres)**
Winter oilseed rape	1.5	-	1	Up to 4 leaf stage of crop (BBCH 14) AND before end of January in year of harvest	5
Spring oilseed rape	1.5	-	1	Before 10 true leaf stage (BBCH 19)	5
Broccoli, Brussels sprout, cabbage, calabrese & cauliflower	1.5	-	1	Before 9 true leaf stage (BBCH 19)	5
Ornamental plant production	1.5	1.5	-	-	5
Nursery fruit trees	1.5	1.5 (see other specific restriction below*)	-	-	5

Other specific restrictions:
Applications shall be limited to a total dose of not more than 1.0 kg metazachlor/ha in a three year period on the same field.
KEEP LIVESTOCK out of treated areas until poisonous weeds such as ragwort have died and become unpalatable.
*When SULTAN 50 SC is used on nursery fruit trees, any fruit harvested within one year of application must be destroyed.
Do not apply using broadcast air-assisted sprayers.
DO NOT RE-USE CONTAINER for any purpose.
READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS.

SAMPLE

DIRECTIONS FOR USE

IMPORTANT: This information is approved as part of the Product Label. All instructions within this section must be read carefully in order to obtain safe and successful use of this product.

SULTAN 50 SC is a suspension concentrate formulation containing metazachlor for use as a residual herbicide in all varieties of winter and spring oilseed rape, cauliflower, cabbage, Brussels sprouts, broccoli and calabrese. It is also recommended for use in certain ornamental plant production and nursery fruit trees.

SULTAN 50 SC is recommended as a pre- and post-emergence herbicide. Where it is to be used pre-emergence, it is important to ensure the herbicide does not come into contact with the crop seed by drilling the seed to a depth of 15mm and ensuring it is well covered by soil before spraying. Do not use pre-emergence on broadcast crops.

Post-emergence application is advised where it is not possible to make pre-emergence applications due to light or stony soils, those with organic matter content higher than 10%, adverse weather conditions, poor seed bed preparation or missed timing of crop.

RESTRICTIONS AND WARNINGS

Do not overlap spray swaths.

Do not treat crops which are suffering from stress.

Extreme care should be taken to avoid damage by drift onto plants outside the target area.

Do not apply SULTAN 50 SC to crops grown in a poor seedbed.

Do not apply under adverse weather conditions. Weed control will be improved if soil is moist at time of application.

Some damage may occur, especially on brashy or stony soils. This will normally be outgrown.

Do not apply to crops with a compaction layer or to poorly drained soils since damage can occur under waterlogged conditions.

Useful weed control can be obtained on organic soils with an organic matter above 10%, but control may decrease as the organic matter increases.

Transplanted brassicae should be correctly planted with the roots well covered. Loose and puffy seedbeds should be consolidated before treatment. Ensure transplants are fully hardened off and established before treatment. Irrigate if necessary to establish plants and raise soil moisture.

Do not apply pre-emergence on broadcast crops.

Consult processors before applying to crops to be processed.

Do not use filters finer than 50 mesh.

Crops should not be re-entered until spray residues are dry.

In ornamental plant production and nursery fruit trees apply to new plantings only when they are hardened off and well established. Not all species or culitvars have been tested (list under crop information), it is advised to treat a small area first before treating the whole area. Some damage may occur which should normally grow out.

Do not treat ornamental plants or nursery fruit trees suffering from stress or in extremes of conditions such as very hot or very cold weather, sunny conditions or applications made to plants with soft, vigorously growing foliage. On nursery fruit trees, fruit harvested within one year of application must not be consumed.

RESISTANCE

Strains of some annual grasses (e.g. blackgrass, wild oats and Italian rye-grass) have developed resistance to herbicides which may lead to poor control. A strategy for preventing and managing such resistance should be

SAMPLE

adopted. Guidelines have been produced by the Weed Resistance Action Group and copies are available from the AHDB, CropLife UK, your distributor, crop advisor or product manufacturer.

Repeated use of herbicides with the same mode of action can increase the risk of strains of weeds developing resistance to these compounds, leading to poor control. In order to minimise the risk, a strategy for preventing and managing such resistance should be adopted. Use products with different modes of action and from different chemical groups in sequence or tank-mix, in conjunction with effective cropping rotation and cultivation techniques. In all cases the recommended rate of use should be adhered to. Follow WRAG guidelines.

Key elements of the resistance management strategy for Sultan 50 SC:

Always follow WRAG guidelines for preventing and managing herbicide resistant weeds.

Maximise the use of cultural control measures wherever possible (e.g. crop rotation, ploughing, stale seedbeds, delayed drilling, etc.).

Use tank mixes or sequences of effective herbicides with different modes of action within individual crops, or successive crops.

For the control of herbicide resistant grass weeds, always use Sultan 50 SC in sequence with other effective graminicides with different modes of action.

Monitor fields regularly and investigate the reasons for any poor control.

WEEDS CONTROLLED

Weed	**Susceptibility pre-emergence**
	1.5 L/ha
Annual meadowgrass	S
Blackgrass	MS
Cleavers	MR
Common chickweed	S
Common fumitory	R
Common poppy	MS
Cut-leaved cranesbill	MR
Field forget-me-not	S
Field pansy	R
Field penny-cress	R
Groundsel	S
Knotgrass	R
Mayweed spp	S
Parsley piert	S
Red dead-nettle	S
Redshank	R
Shepherd's purse	S
Speedwell spp	S

R – Resistant S – Susceptible MS – Moderately Susceptible MR – Moderately Resistant

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CROP SPECIFIC INFORMATION

Winter and spring oilseed rape

SULTAN 50 SC may be applied to all varieties of oilseed rape.

Transplanted and direct drilled broccoli, Brussels sprout, cabbage, cauliflower, calabrese

SULTAN 50 SC may be applied to both direct drilled and transplanted brassicae.

Ornamental plant production and nursery fruit trees

Only certain species should be treated. Only treat crops which are well established and under good growing conditions. Avoid applications to soft, vigorously growing foliage, especially during or just after a period of warm days and cold nights. Selectivity is best when applications are made in cool, overcast conditions. The following species can be treated, but it is advised to treat a small area first. Some damage may occur which should normally grow out.

It is advisable to test for compatibility and tolerance to crop injury prior to full scale commercial use.

Shrubs
Berberis
Cotoneaster
Cornus
Euonymus
Forsythia
Hippophae
Hypericum
Ilex
Ligustrum
Mahonia
Philadelphus
Potentilla
Rhamnus
Ribes
Rosa
Rubus
Sambucus
Spirea
Stephanandra
Symphoricarpus
Tamarix
Weigela

Trees
Acer
Aesculus
Ailanthus
Alnus
Amelanchia
Betula
Carpinus
Castanea
Catalpa
Chamaecyparis
Crataegus
Davidia
Fagus
Gleditsia
Juniperus
Larix
Malus
Nothofagus
Ostrya
Picea
Platanus
Populus
Prunus
Pseudotsuga
Pyrus
Quercus
Salix
Sorbus
Thuja
Tilia

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TIME OF APPLICATION

Winter oilseed rape

Apply pre-emergence up until the crop seed begins to chit. Post-emergence applications should be made when the majority of the crop has reached the fully expanded cotyledon stage, the first true leaf should be partly emerged. Weed control will be best achieved if soils are moist at time of application or rainfall is expected shortly after application.

Spring oilseed rape

Apply pre-emergence up until the crop seed begins to chit, this may occur within 48 hours of drilling in warm soils.

Post-emergence applications should be made once crop has two fully expanded cotyledons and before 10 true leaves (BBCH 19). Best weed control is achieved if application is made before weed emergence. Broadcast crops must ONLY be treated post-emergence and this is the preferred timing for all crops grown on light, brashy, stony or gravelly soils.

Brassicae

Direct drilled - apply SULTAN 50 SC after the crops have 3-4 true leaves but before weed emergence. Latest timing of application is before 9 true leaf stage (BBCH 19) of the crop. Best weed control is achieved if application of SULTAN 50 SC is made before weed emergence.

Transplanted - the latest time of application of Sultan 50 SC is before 9 true leaf stage (BBCH 19) of the crop. When treating transplants, ensure that the roots are well covered with soil and that the plants are adequately hardened off and established prior to treatment. If necessary, use irrigation to help establish the plants and raise soil moisture before treatment. Avoid spraying transplants when very warm days and cool nights are expected. Modular or block-raised transplants can be particularly sensitive to herbicide damage because they are often both soft and immature. It is essential that the directions concerning transplants are followed in full and it is advisable to only treat a small area in the first instance.

Ornamental plant production and nursery fruit trees

An application of SULTAN 50 SC should be made as weeds appear.

RATE OF USE

Oilseed rape

Pre-emergence

Rate of use: 1.5L/ha

Water volume: apply in a minimum of 100 L/ha water.

Post-emergence

Rate of use: 1.5 L/ha

Water volume: apply in a minimum of 200 L/ha water.

Qualified recommendation: lower water volumes (minimum100 L/ha) may also be used, however these have not been supported by effectiveness or crop safety data.

Spring oilseed rape

Rate of use: 1.5 L/ha

Water volume: apply in a minimum of 200 L/ha water.

Qualified recommendation: lower water volumes (minimum 100 L/ha) may also be used, however these have not been supported by effectiveness or crop safety data.

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Direct drilled and transplanted brassicas

Rate of use: 1.5 L/ha

Water volume: apply in a minimum of 200 L/ha water.

Qualified recommendation: lower water volumes (minimum 100 L/ha) may also be used, however these have not been supported by effectiveness or crop safety data.

Ornamental plant production and nursery fruit trees

Rate of use: 1.5 L/ha

Water volume: Minimum of 200 L/ha water. Use a higher water volume where weeds are dense or on poor seedbeds to ensure good coverage.

Application can also be made by knapsack sprayer round the base of stems. A sprayer containing 20 litres of spray solution will require 54 ml SULTAN 50 SC to treat 360 m^2.

FOLLOWING CROPS

After normal harvest any crop can be drilled.

Where the crop fails in the autumn or winter, only winter wheat (excluding durum) and winter barley can be re-drilled the same autumn following ploughing to 15cm.

Re-drilling the following spring:

Where the crop fails, land must be ploughed to a depth of 15 cm. The following crops can be sown the following spring.

Brassica

Cereals (excluding durum wheat)

Field beans

Linseed

Maize

Oilseed rape

Peas

Potatoes

MIXING AND SPRAYING

Shake can well before use. Quarter fill the spray tank with clean water and begin agitation. Add the required quantity of SULTAN 50 SC to the tank and complete filling. Continue agitation until spraying is completed.

Use a MEDIUM spray as defined by the BCPC system. Avoid spray drift.

Wash sprayer thoroughly immediately after use, using a suitable tank cleaner and following the sprayer cleaning guidance provided by the equipment manufacturer.

COMPATIBILITY

Mixtures known to be incompatible include mixtures with liquid fertilisers, Laser + lambda-cyhalothrin and suspension fertilisers (except Omex Suspension Fertiliser).

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COMPANY ADVISORY SECTION

This section is not part of the Product Label under the Plant Protection Products Regulations and provides additional advice on product use at the discretion of ADAMA Agricultural Solutions UK Ltd.

This product contains **metazachlor** and is therefore included in the "**OSR Herbicides? Think Water**" stewardship campaign. Particular care is needed when using in **Surface Water Drinking Water Safeguard Zones**:-

- **Do not use** after 30 September on drained fields, including mole-drained.

In other areas:-

- Avoid use after 15 October on drained fields, including mole-drained.

For further information, see www.adama.com and www.voluntaryinitiative.org.uk or contact ADAMA on 01635 876622

DISCLAIMER/CONDITIONS OF SUPPLY

The specified properties of our products and the mode of application stated on this label have been established on the basis of research and experience. Products conform to specification at the time of delivery but, as we exercise no control over their subsequent storage, handling, mixing or use or the weather conditions before, during and after application, all of which may affect the performance of the products, no responsibility or liability will be accepted by us or our re-sellers for any failure in performance, damage or injury to person or property whatsoever arising from the storage, handling, application or use of the products. These conditions cannot be varied by our staff or agents whether or not they supervise or assist in or make recommendations concerning the use of such products. We recommend you contact your dealer to request advice on the suitability of this product for any new and/or unusual growing methods or for new varieties not listed on this label.

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