

RAPSAN 500 SC

A herbicide for broadleaved weed control and some grass weed control.
A suspension concentrate (SC) containing 500 g/L (43.8% w/w) metazachlor.

RISK AND SAFETY INFORMATION
May cause an allergic skin reaction
Suspected of causing cancer
Very toxic to aquatic life with long lasting effects

Obtain special instructions before use
Avoid breathing fumes or spray
Avoid release to the environment
Wear protective gloves, face protection, protective clothing, eye protection
If exposed or concerned: Get medical advice/attention
Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for triple rinsed empty containers which can be disposed of as non-hazardous waste

To avoid risks to human health and the environment, comply with the instructions for use.
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 of 5m to surface water bodies.

PCS no. 05886

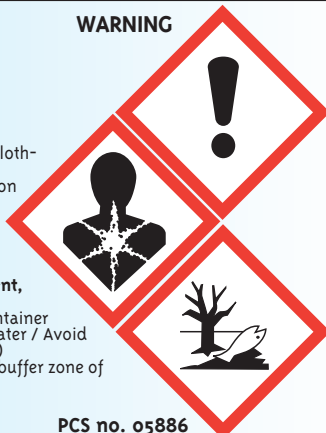
IMPORTANT INFORMATION
FOR USE ONLY AS AN AGRICULTURAL HERBICIDE

Crops	Max. individual dose	Max. total dose	Latest time of application
Oilseed rape (winter)	1,5 L/ha	1,5 L/ha	Before 10th True leaf stage (GS 19)
Oilseed rape (spring)	1,5 L/ha	1,5 L/ha	Pre-emergence
Swede (field)	1,5 L/ha	1,5 L/ha	Post-emergence GS16-18 or 7-14 days after planting
Turnip (field)	1,5 L/ha	1,5 L/ha	Post-emergence GS16-18 or 6-8 days after planting
Cabbage (field)	1,5 L/ha	1,5 L/ha	Post-emergence GS16-18 or 6-8 days after planting
Cauliflower (field)	1,5 L/ha	1,5 L/ha	Post-emergence GS16-18 or 6-8 days after planting
Brussels sprout (field)	1,5 L/ha	1,5 L/ha	Post-emergence GS16-18 or 6-8 days after planting
Broccoli (field)	1,0 L/ha	1,0 L/ha	Post-emergence GS16-18 or 6-8 days after planting
Calabrese (field)	1,0 L/ha	1,0 L/ha	Post-emergence GS16-18 or 6-8 days after planting

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.

READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE.

WARNING



Contents:
3 lit. e

PROTECT FROM FROST

SHAKE WELL BEFORE USE

Batch No: see packaging

FOR PROFESSIONAL USE ONLY
For 24 hour emergency information contact Globachem n.v.
Telephone: +32 11 78 57 17

Registration holder:



GLOBACHEM NV
Brustem Industriepark - Lichtenberglaan 2019
B-3800 Sint-Truiden - Belgium
Tel: +32 11 78 57 17 - Fax: +32 11 68 15 65
E-mail: globachem@globachem.com
Web: www.globachem.com



SAFETY PRECAUTIONS

Operator protection
Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment:
Operators must wear suitable protective clothing (coveralls) and suitable protective gloves when handling the concentrate or applying by hand-held equipment.
Operators must wear suitable protective gloves when handling contaminated surfaces.
WHEN USING DO NOT EAT, DRINK, OR SMOKE.
IF YOU FEEL UNWELL, seek medical advice immediately (show the label where possible).
WASH CONCENTRATE from skin or eyes immediately.
WASH HANDS AND EXPOSED SKIN before eating, drinking or smoking and after work.

Environmental protection
To protect aquatic organisms respect an unsprayed buffer zone of 5m to surface water bodies.
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.

Storage and disposal
KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.
KEEP OUT OF REACH OF CHILDREN.
KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.
RINSE CONTAINER THOROUGHLY, using an integrated pressure rinsing device or manually rinsing three times. Add washings to the spray/tank and dispose of safely.
DO NOT RE-USE CONTAINER for any purpose.

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.

Restrictions and warnings
Restrictions
RAPSAN 500 SC is suitable for use on all soil types as defined in the Soil Texture (85) System, except sands and very light soils and soils containing more than 10% organic matter.
Useful weed control can be obtained on soils with an organic matter higher than 10% but it may decrease as the percentage of organic matter increases appreciably.

With drilled crops, when applying RAPSAN 500 SC pre-emergence, it is important for crop safety to ensure physical separation of the herbicide from the seed. This is achieved by ensuring that the seed is well covered with soil, to a depth of 15 mm. With direct-drilled crops, narrow across slits to cover the seed before spraying RAPSAN 500 SC. Ensure that transplants are correctly planted with the roots well covered. Loose and purly seedlings must be consolidated before treatment.

Warnings
1. A reduction in crop vigour, weed control and possibly plant stand may occur with excessive rainfall shortly after application. If heavy irrigation is planned after transplanting, apply RAPSAN 500 SC after irrigating. Where a crop check has occurred this usually grows out after a few weeks and yields are normally unaffected.
2. Do not apply RAPSAN 500 SC to soils with a compaction layer or to poorly drained soils, since damage can occur under waterlogged conditions.
3. If RAPSAN 500 SC is applied onto a dry soil surface it will only be effective after rainfall has occurred. Light (10 mm at any one time) irrigation will help to ensure herbicidal activity. Post-emergence weed control is also dependent on adequate moisture.
4. On brashy and stony soils, RAPSAN 500 SC may cause some reduction in crop vigour and/or plant stand, due to the chemical moving down to the rooting zone too rapidly.
5. Do not overlap spray swaths, particularly on the headlands.
6. Do not treat crops, which are suffering from wilting, pests or diseases or badly planted transplants.
7. When used alone RAPSAN 500 SC has very little dewaxing activity. However, under frosty conditions a transient scorch may sometimes occur. Do not use RAPSAN 500 SC in tank mixtures under frosty conditions.

Important notes
1. Avoid spray drift on to neighbouring crops.
2. Do not use filters finer than 80 microns.
3. WASH EQUIPMENT thoroughly immediately after use. Fill the tank with clean water and leave overnight. Spray out before storage or using other products. Traces of the product may cause damage to susceptible crops sprayed later.

Weeds controlled
RAPSAN 500 SC is a residual herbicide which can be used in all varieties of winter and spring sown oilseed rape, swedes, turnips, cabbages, Brussels sprouts, cauliflowers, broccoli and calabrese. Herbicidal activity is dependent upon root uptake.

Weed name	Pre-emergence 1.5 L/ha
Common chickweed	S
Cleavers	MR
Cut-leaved cranesbill	MR
Red dead-nettle	S
Field forget-me-not	S
Common fumitory	R
Groundsel	S
Knolgrass	R
Mayweeds	S
Annual meadow-grass	S
Field pansy	R
Parley plant	S
Field penny cross	R
Common poppy	MS
Shepherd's purse	S
Spodewells	S

S Susceptible
MS Moderately susceptible
MR Moderately resistant
R Resistant

Crop specific information
Winter oilseed rape
Time of application
RAPSAN 500 SC may be applied pre-emergence or post-emergence, depending on soil type, the seedbed conditions and weed spectrum, see below.
Pre-emergence use
On medium and heavy soils where seedbeds are moist, firm and free from clods, RAPSAN 500 SC should be applied from drilling up until the crop seed chits. In warm soils, this may occur within 48 hours of drilling.
DO NOT USE the full rate organic recommendation when any of the following conditions apply:
• When heavy rain is forecast.
• Dry cloudy seedbeds.
• Do not use on broadcast or late drilled crops.
• Stony soils i.e. stones, flints or chalk, readily visible on the soil surface.

Early post-emergence use
RAPSAN 500 SC can be used on light, medium or heavy soils post-emergence, once the majority of the crop has reached the fully expanded cotyledon stage, providing weeds are not beyond their maximum susceptible growth stage (see weed susceptibility section and note moisture requirement).
Post-emergence application of RAPSAN 500 SC is recommended if:
• Seedbed conditions are not ideal for the pre-emergence use.
• The seed is not covered with 15 mm of soil (as with broadcast crops).
• RAPSAN 500 SC could not be applied before the crop seed chits.
• Light soils, or all recommended soils which are stony, brashy or gravelly, are to be treated, particularly if heavy rainfall has been forecast for the period following drilling.
• Late drilled crops are to be treated.

Rates of application for pre- or post-emergence
Apply 1.5 litres RAPSAN 500 SC per hectare, pre- or post-emergence.
Water volume
When applying RAPSAN 500 SC pre-emergence in tank mixture or whenever applying RAPSAN 500 SC post-emergence, use a minimum water volume of 220 litres per hectare.
RAPSAN 500 SC can be applied in water volumes of 100 litres per hectare when used pre-emergence, but should not be used on poor seedbeds nor in tank mixture with other products at this water volume. When using this low water volume, fan or hollow cone nozzles designed to operate at normal pressure, 2-3 bar or low pressure flat nozzles designed to operate at around 1 bar, producing a coarser spray, may be used.

Conditions
Ideal conditions are mild and moist when weeds are actively growing and before the crop starts to shed the weeds.
Foliage should be dry at the time of application. Do not spray if rain is expected within the following four hours or during windy conditions, or if the foliage is frost covered.
Under cold, dry conditions or in poor non-competitive crops, weed control is likely to be less effective.
If weeds are shaded by the crop or by grass/volunteers at application, control may only be partial, resulting in regrowth. Where grass weeds or volunteers are likely to be a problem then they are best removed early on with a granularicide.

within the following four hours or during windy conditions, or if the foliage is frost covered.
Under cold, dry conditions or in poor non-competitive crops, weed control is likely to be less effective.
If weeds are shaded by the crop or by grass/volunteers at application, control may only be partial, resulting in regrowth. Where grass weeds or volunteers are likely to be a problem then they are best removed early on with a granularicide.

Recommendation summary for winter oilseed rape

	Pre-emergence for broad spectrum weed control on the heavier soils		Post-emergence	
	1.5 L/ha	1.5 L/ha	1.5 L/ha	1.5 L/ha
Rate	1.5 L/ha	1.5 L/ha	1.5 L/ha	1.5 L/ha
Broadcast crops	Do not use	Use permitted	Use permitted	Use permitted
Crop stage	After drilling and prior to chitting of crops drilled early or at normal time	After cotyledons fully expanded (1 st true leaf should be partly enlarged)	From when most of the crop has 3 expanded leaves, up to the end of January	From when most of the crop has 3 expanded leaves, up to the end of January
Weed stage	Pre-emergence	Before weeds reach max. susceptible stage	Before weeds reach maximum stage for control	Before weeds reach maximum stage for control
Soil type	Medium to heavy	Light to heavy	Light to heavy	Light to heavy
Seedbed condition	Fine, firm, moist. Not dry or cloddy	Not critical provided crop is well rooted and not stressed	Not critical provided crop is well rooted and not stressed	Not critical provided crop is well rooted and not stressed
Drilling depth	15 mm	Not critical provided crop is well rooted and not stressed	Not critical provided crop is well rooted and not stressed	Not critical provided crop is well rooted and not stressed
Water volume	Use a min. of 100 L/ha. For tank mixes use at least 220 L/ha.	Use a minimum of 220 L/ha	Use a minimum of 220 L/ha	Use a minimum of 220 L/ha. Increase water volume in denser crops to 300-400 L/ha
Important notes	DO NOT USE on broadcast or late-drilled crops, stony soils	Adequate moisture is necessary for weed control	Moisture is required for full herbicidal effect	

Special Notes
1. RAPSAN 500 SC will give moderate control of cleavers when applied at any of the recommended timings, provided that the weeds have not emerged at the time of application and adequate soil moisture is present.
2. Approved herbicides may follow a pre- or early post-emergence application of RAPSAN 500 SC, provided that the crop is undamaged and showing no adverse symptoms.

Swedes, turnips and spring oilseed rape
One application of 1.5 litres per hectare RAPSAN 500 SC is recommended. Apply RAPSAN 500 SC in 220-450 litres of water per hectare. Use the higher water volume when seedbeds are not ideal (i.e. slightly cloddy).
RAPSAN 500 SC should be applied after drilling to seedbeds that are firm, moist and free from clods before the crop seed chits. This may occur within 48 hours of drilling in warm soils. Do NOT treat if heavy rain is forecast as heavy rain before emergence may reduce crop stand.

Additional information
Spring oilseed rape
As an alternative, RAPSAN 500 SC may be applied once the crop has two fully expanded cotyledons but before weeds emerge. Broadcast-crops must ONLY be treated post emergence and this is the preferred timing for crops grown on light, brashy, stony or gravelly soils. The latest time of application of RAPSAN 500 SC before the crop has 10 true leaves

Swedes and turnips
The latest time of application of RAPSAN 500 SC is pre-emergence in these crops.

Brassicaceae (Field)
To protect weed control in cabbages, Brussels sprouts, cauliflower, broccoli or calabrese, one application of RAPSAN 500 SC can be made post-emergence of the crop (GS16-18), following the use of an alternative pre-emergence treatment. Apply RAPSAN 500 SC in 220-450 litres of water per hectare. Use the higher water volume where seedbeds are not ideal (i.e. slightly cloddy).
The dose after planting differs according to the cabbage type:
- 1.5 L/ha: in cabbage, cauliflower and Brussels sprout (7-14 days after planting or in the 6-8 leaf stage).
- 1 L/ha: in broccoli and calabrese (6-8 days after planting or in the 6-8 leaf stage).

Max. 1 application per crop.

Succeeding crops
Following or rotational crops must not be planted until six months after application of RAPSAN 500 SC.

- Any crop can follow normally harvested winter oilseed rape treated with RAPSAN 500 SC and ploughing is not essential before sowing the following cereal crop.
- In the event of a crop falling in the autumn or winter, then several crops can be drilled 6 months after the use of RAPSAN 500 SC alone after ploughing:
 - Transplanted or direct drilled Brassicaceae
 - Cereals (excluding Durum wheat)
 - Field beans
 - Linseed
 - Maize
 - Peas
 - Potatoes

Mixing and spraying
SHAKE WELL BEFORE USE. Half fill the spray tank with clean water and start the agitation. Pour in the required amount of RAPSAN 500 SC. Add the remainder of the water and continue agitation until spraying is completed.
Rinse empty containers thoroughly, and add rinsings to the spray tank. When tank mixes are to be used, each product should be added separately to the spray tank, taking due note of any instructions given as to the order of mixing. Extreme care should be taken to avoid damage by drift onto plants outside the target area.

Compatibility
RAPSAN 500 SC is compatible with most of the common used agrochemicals. To avoid all problems, we advise to do a small compatibility test before mixing with other agrochemicals or fertilisers. Mixtures known to be incompatible include mixtures with liquid fertilisers, cycloxtim + lambda-cyhalothrin and suspension fertilisers.

Herbicide resistance
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/or 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 RAPSAN 500 SC:
• Always follow WRAG guidelines for preventing and managing herbicide resistance to 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 RAPSAN 500 SC in sequence with other effective granularicides with different modes of action.

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

CONDITIONS OF SUPPLY
All goods supplied by us are of high grade and we believe them to be suitable but, as we cannot exercise control over their storage, handling, mixing or use, or the weather conditions before, during or after application which may affect the performance of the goods, all conditions and warranties, statutory or otherwise, as to quality or fitness for any purpose of our goods are excluded. No responsibility will be accepted by us or our suppliers for any failure in performance, damage or injury whatsoever arising from their storage, handling, application or use. These conditions cannot be varied by our staff or agents whether or not they supervise or assist in the use of such goods.