



**A herbicide for use in winter  
and spring oilseed rape,  
Brussels sprout, ornamental  
trees and ornamental shrubs**

A suspension concentrate containing  
500 g/L (43.1 % w/w) metazachlor and  
1,2-benzisothiazol-3(2H)-one and  
2-methylisothiazol-3(2H)-one

MAPP No.: 18516

GROUP

K3

HERBICIDE

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

**PROTECT FROM FROST  
FOR PROFESSIONAL USE ONLY**

Production date / Batch number: see packaging

**24-hour emergency number: 0032 14 58 45 45**

Content:

**5Le**



The Voluntary Initiative

This label is compliant with  
the CPA Voluntary Initiative  
Guidance

For warehouse  
purposes only

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**IMPORTANT INFORMATION: FOR USE ONLY AS AN AGRICULTURAL/HORTICULTURAL HERBICIDE**

Crops/Situations	Maximum individual dose (L product/ha)	Maximum total dose:	Latest time of application	Aquatic buffer zone distance (metres)
Oilseed rape	1.5	1.5 L product/ha/crop	Before 9 true leaf stage (GS19)	5
Brussels sprout	1.5	1.5 L product/ha/crop	Before 9 true leaf stage (GS19)	5
Ornamental trees, ornamental shrubs	1.5	1.5 L product/ha/year	-	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 in the same field.

**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.**

**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.
- WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when 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.
- WHEN USING DO NOT EAT, DRINK OR SMOKE.
- IF YOU FEEL UNWELL, seek medical advice (show label where possible).

**ENVIRONMENTAL PROTECTION**

- 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 Environment Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 1 m 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 1 m 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 Environment Risk Assessment for Pesticides (LERAP) scheme. Before each spraying operation from horizontal boom sprayers, either a LERAP must be carried out in accordance with CRD's published guidance or the statutory buffer zone as appropriate to the crop must be maintained. The results of the LERAP must be recorded and kept available for three years.
- KEEP LIVESTOCK out of treated areas until poisonous weeds such as ragwort have died and become unpalatable.

**STORAGE AND DISPOSAL**

- Keep dry and frostproof in a suitable pesticide store.
- 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 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.

## **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.**

RAPSAN SOLO is a residual herbicide which can be used in all varieties of winter and spring sown oilseed rape and Brussels sprouts. It may also be used in some ornamentals and hardy nursery stock.

RAPSAN SOLO is suitable for use on all soil types as defined in the Soil Texture (85) System, except sand and very light soils and soils containing more than 10% organic matter.

### **1. RESTRICTIONS/WARNINGS**

With drilled crops, when applying RAPSAN SOLO pre emergence, it is important for crop safety to ensure physical separation of the herbicide from the seed. Ensure that the seed is well covered with soil, to a depth of 15 mm. With direct drilled crops, harrow across slits to cover the seed before spraying Rapsan Solo. Ensure that transplants are correctly planted with the roots well covered. Loose and puffy seedbeds must be consolidated before treatment.

Do not apply to broadcast crops of oilseed rape until the crop has attained the two fully expanded cotyledon growth stage. Do not use when heavy rain is forecast.

On medium and heavy soils where seedbeds are moist, firm and free from clods, pre-emergence Rapsan Solo should be applied from drilling up until the crop seed chits. In warm soils, this may occur within 48 hours of drilling.

Avoid applying Rapsan Solo to soils with a compaction layer or which are poorly drained, as crop damage can occur under waterlogged conditions.

Care should be taken to avoid overlap of spray swaths.

Do not treat crops which are suffering from wilting, pests or diseases or badly planted transplants.

When used alone Rapsan Solo has very little dewaxing activity. However, under frosty conditions a transient scorch may sometimes occur. Do not use Rapsan Solo in tank mixtures under frosty conditions.

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 Solo after irrigating. Where a crop check has occurred this usually grows out after a few weeks and yields are normally unaffected.

On brashy and stony soils, Rapsan Solo may cause some reduction in crop vigour and/or plant stand, due to the chemical moving down to the rooting zone too rapidly.

Herbicidal activity is dependent upon root uptake. If Rapsan Solo 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. Weed control is dependent on adequate moisture.

Useful weed control can be obtained on soils with an organic matter content higher than 10% but it may decrease as the percentage of organic matter increases appreciably.

In ornamental trees and ornamental shrubs not all species or cultivars have been tested and so only a small number of plants should be treated initially to gain experience with the treatment; selectivity is greatest when applied under cool, overcast conditions. Applications should not be made to soft, vigorously growing foliage, particularly during or after a period of warm days and cold nights.

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

To reduce the risk of movement of Rapsan Solo to water:

- On clay soils, create a fine, consolidated seedbed to slow the downward movement of water.
- Do not apply Rapsan Solo to dry soil/ Moist soils have fewer and smaller cracks.
- Do not apply Rapsan Solo if heavy rain is forecast, wait until after the event.

### **2. CROPS**

Rapsan Solo can be used in all varieties of winter and spring sown oilseed rape and Brussels sprouts. It may also be used in some ornamentals and hardy nursery stock.

#### **2.1 Oilseed rape**

##### **2.1.1 Time of application**

Rapsan Solo may be applied pre-or post-emergence of the crop, depending on soil type, the seedbed conditions and weed spectrum, see Section 3. Use before 9 true leaf stage (GS19).

Approved herbicides may follow a pre or early post emergence application of Rapsan Solo, provided that the crop is

undamaged and showing no adverse symptoms.

**Pre emergence use:** On medium and heavy soils where seedbeds are moist, firm and free from clods, Rapsan Solo should be applied from drilling up until the crop seed chits. In warm soils, this may occur within 48 hours of drilling.

Do not apply to broadcast crops until the crop has attained the two fully expanded cotyledon growth stage.

**Early post emergence use:** Rapsan Solo can be used on light, medium or heavy soils post emergence, once the majority of the crop has reached the fully expanded cotyledon stage. See section 3 for weed susceptibility and note moisture requirement.

Post emergence application of Rapsan Solo 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 Solo 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.

### 2.1.2 Rate of application

Oilseed rape - apply at 1.5 litres Rapsan Solo per hectare, pre or post emergence of the crop.

See section 3 for weed susceptibility and note moisture requirement

### 2.1.3 Summary for oilseed rape

	Pre emergence	Post emergence
Broadcast crops	Do not use	Use permitted
Crops growth stage	After drilling and prior to chitting of crops (Generally within 48 hours)	After cotyledons fully expanded (1 <sup>st</sup> true leaf partly emerged)
Weed growth stage	Pre emergence	See Section 3
Soil type	Medium to heavy	Light to heavy
Seed bed	Fine, firm, moist. Not dry or cloddy.	Not critical provided reasonable
Drilling depth	15 mm	Not critical provided crop is well rooted and not stressed
Important notes	DO NOT USE on broadcast or late drilled crops, or stony soils	Adequate moisture is necessary for weed control

## 2.3 Transplanted Brussel sprout

### 2.3.1 Time of application

The latest time of application of Rapsan Solo is 6 weeks before harvest in transplanted Brussel sprout.

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 with Rapsan Solo. 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 is advisable to only treat a small area in the first instance.

### 2.3.2 Rate of application

Apply at 1.5 litres per hectare Rapsan Solo. See Section 3 for weed susceptibility and note moisture requirement.

## 2.4 Direct drilled Brussel sprout

### 2.4.1 Time of Application

Apply Rapsan Solo after the crops have 3-4 true leaves but before weed emergence. Do not treat crops within 6 weeks of harvesting.

To prolong weed control in direct drilled Brussel sprout one application of Rapsan Solo can be made post emergence of the crop following the use of an alternative pre emergence treatment. See Section 3 for weed susceptibility and note moisture requirement.

### 2.4.2 rate of application

Apply at 1.5 litres per hectare Rapsan Solo. See Section 3 for weed susceptibility and note moisture requirement.

### **2.5 Ornamental trees and ornamental shrubs.**

DO NOT treat crops growing under glass or polyethene, in containers or any plants suffering from adverse conditions, either environmental or from previous treatments. (See also Restrictions/Warnings.)

DO NOT treat crops under hot, sunny conditions.

If Rapsan Solo 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.

#### **2.5.1 Time of Application**

Apply as a surface spray to beds which are moist, firm and free from clods once existing weeds have been removed and before new weeds have emerged (see section 3). New planting can be treated after lining out or transplanting once the plants are established and sufficiently hardened off to withstand treatment. This may require irrigation before application which will also ensure adequate soil moisture.

When used in sequence with other herbicides, apply when the previous treatment begins to fail. This is indicated by the first signs of weed germination. This criterion can also be used to time subsequent applications following the use of Rapsan Solo.

#### **2.5.2 Rate of application**

Apply 1.5 litres per hectare Rapsan Solo. See Section 3 for weed susceptibility and note moisture requirement. When using a knapsack sprayer for directed applications around the base of stems, mix as directed in Section 4.

#### **2.5.3 Crop Tolerance in ornamental trees and shrubs**

Species and cultivars in the following genera have been treated with a spray directed at the stem base without significant crop damage:

<b>Trees</b>					
Acer	Carpinus	Davidia	Malus	Populus	Salix
Aesculus	Castanea	Fagus	Nothofagus	Prunus	Sophora
Ailanthus	Catalpa	Fraxinus *	Ostrya	Pseudotsuga	Sorbus
Alnus	Chamaecyparis	Gleditsia	Picea	Pyrus	Thuja
Amelanchia	Corylus **	Juniperus	Pinus *	Quercus	Tilia
Betula	Crataegus	Larix	Platanus	Robinia *	

  

<b>Shrubs</b>					
Berberis	Euonymus	Ilex	Potentilla	Rubus	Symphoricarpus
Cotoneaster	Forsythia	Ligustrum	Rhamnus	Sambucus	Tamarix
Cornus	Hippophae	Mahonia	Ribes	Spirea	Viburnum *
Escallonia	Hypericum	Philadelphus	Rosa	Stephanandra	Weigela

Note: \* These species may show transient leaf curl, leaf necrosis and mottling (needle shortening on Pinus) from overall sprays.

\*\*These species have been tested with a directed spray at the stem base only.

Some of the above may be treated with an overall spray. Not all species or cultivars have been tested and so only a small number of plants should be treated initially to gain experience with the treatment. Selectivity is greatest when applied under cool, overcast conditions. Applications should not be made to soft, vigorously growing foliage, particularly during or after a period of warm days and cold nights. Further information on species and cultivars suitable for treatment is available on request.

### **3. Weed control**

Rapsan Solo is taken up via cotyledons and roots and takes maximum effect before, or shortly after, weed emergence. Optimum results are obtained from applications made to fine, firm and moist seedbeds.

### 3.1 Susceptibility of weeds to a single application of Rapsan Solo

Weed species	Rapsan Solo	
	1.5 L/ha	
	Weed susceptibility rating of weed	Maximum susceptible growth stage
Bind weed, Black	S	-
Bent, Loose-silky	S	S to 1 true leaf
Black-grass	MS	MS to 2 true leaves
Chamomille, Corn	MS	3 true leaves
Chickweed, Common	S	S to 4 true leaves
Cleavers	MR	MR to 1 whorl
Common Amaranth	S	S to 2 true leaves
Crane's bill, Cut-leaved	MR	-
Deadnettle, Henbit	S	S to 1 true leaf
Deadnettle, Red	S	S to 1 true leaf
Fat-hen (Autumn Germinating)	MS	-
Flixweed	S	-
Forget-me-not, Field	MS	-
Fumitory, Common	R	-
Knotgrass	R	-
Groundsel	S	-
Mayweed, Rayless	S	S to 3 true leaves
Mayweed, Scented	S	S to 5 true leaves
Mayweed, Scentless	S	S to 3 true leaves
Meadow-grass, Annual	S	S to 2 true leaves
Nightshade, Black	S	-
Pansy, Field	R	-
Parsley Piert	S	-
Penny-cress, Field	R	-
Poppy, Common	MS	-
Shepherd's- purse	S	-
Sowthistle, Field	MS	-
Speedwell, Common Field	S	S to 2 true leaves
Speedwell, Ivy-leaved	S	S to 1 true leaf
Speedwell, Procumbent	MS	MS to 2 true leaves
Speedwell, Wall	S	S to 1 true leaf

S	Susceptible	MR	Moderately Resistant
MS	Moderately Susceptible	R	Resistant
-	No information		

### 3.2 Resistance

Strains of some annual grasses (e.g. black-grass, 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 adopted. Guidelines have been produced by the Weed Resistance Action Group (WRAG) and copies are available from the HGCA, CPA, your distributor, crop adviser 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 minimize 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 Rapsan Solo:

- 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 Rapsan Solo in sequence with other effective graminicides with different modes of action;
- Monitor field regularly and investigate the reasons for any poor control.

### 4. Mixing and Application

#### 4.1 Mixing

Never prepare more spray solution than is required.

SHAKE WELL BEFORE USE. Fill the spray tank three quarters full with water and start the agitation. To ensure thorough mixing of the product, invert the container several times before opening. Add the required quantity of Rapsan Solo to the spray tank while re-circulating. Fill the tank with the remaining required amount of water and continue agitation until spraying is completed.

On emptying the product container, 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 container safely.

When using a knapsack sprayer fill the sprayer with three quarters of the total water required; add the required quantity of Rapsan Solo to the sprayer, ensuring adequate dispersal of the product, then fill the tank with the remaining water.

#### 4.2 Application

To ensure optimum spray coverage and minimize spray drift, adjust the spray boom to the appropriate height above the crop, according to guidance provided by the sprayer and/or nozzle manufacturer.

Apply Rapsan Solo as a MEDIUM spray as defined by BCPC.

#### 4.3 Guidance on water volumes

Crop	Recommended water volume	Situation & comments
Winter oilseed rape	100 litres	Pre-emergence – not to be used on poor seed beds or in tank mixture with other products at this water volume. When using this reduced water volume nozzles designed to produce a coarser spray may be used.
	190 litres	Pre emergence in tank mixtures or Post emergence
Spring oilseed rape Transplanted & direct drilled Brussel sprout Ornamental trees Ornamental shrubs	190 – 450 litres	Use the higher water volume where seedbeds are not ideal (e.g. slightly cloddy).

#### 4.4 Sprayer cleaning

Wash sprayer thoroughly immediately after use, using clean water and following the sprayer cleaning guidance provided by the equipment manufacturer.



## 5. Following crops

For all situations following or rotational crops must not be planted until six months after use of Rapsan Solo.

### 5.1 Following a normally harvested winter oilseed rape crop

Any crop can follow normally harvested winter oilseed rape treated with Rapsan Solo and ploughing is not essential before sowing the following cereal crop.

### 5.2 Redrilling the following spring

In the event of a crop failing in the autumn or winter, then several crops can be drilled after the use of Rapsan Solo alone as follows:

After ploughing, the following crops can be sown: Cereals (excluding Durum wheat), field beans, peas, transplanted brassicae, direct drilled brassicae, potatoes, maize, linseed.

### 5.3 Following spring applications

Following or rotational crops must not be planted until six months after application of Rapsan Solo. Plough to a depth of at least 150 mm before sowing or planting any succeeding crop.

Where crops follow use in ornamental trees and ornamental shrubs, follow the instructions given above for Rapsan Solo alone.

## 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 the quality or fitness for any purpose of our goods are excluded. No responsibility will be accepted by us or re-sellers 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.

To access the Safety Data Sheet  
for this product, scan the QR code  
or use the weblink below:



[http://www.belchim.co.uk/pdf/MSDS/RapsanSolo\\_MSDS.pdf](http://www.belchim.co.uk/pdf/MSDS/RapsanSolo_MSDS.pdf)

Alternatively, contact your supplier.



## **Rapsan Solo®**

A suspension concentrate containing 500 g/L (43.1% w/w) metazachlor and 1,2-benzisothiazol-3(2H)-one and 2-methylisothiazol-3(2H)-one.

### **WARNING**



**H302 Harmful if swallowed**

**H317 May cause an allergic skin reaction**

**H351 Suspected of causing cancer**

**H410 Very toxic to aquatic life with long lasting effects.**

P101 If medical advice is needed, have product container or label at hand.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P261 Avoid breathing mist/spray.

P270 Do not eat, drink or smoke when using this product.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves / protective clothing / eye protection / face protection.

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P302+P350 IF ON SKIN: Gently wash with plenty of soap and water.

P308+P313 If exposed or concerned: Get medical advice/attention.

P330 Rinse mouth.

P333+P313 If skin irritation or a rash occurs: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash before reuse.

P391 Collect spillage.

P405 Store locked up.

P501 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 waste.

**EUH401 To avoid risks to human health and the environment, comply with the instructions for use.**