

## CAUTION

KEEP OUT OF REACH OF CHILDREN  
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

# Voraxor<sup>®</sup>

## Herbicide

**ACTIVE CONSTITUENT: 250 g/L SAFLUFENACIL  
125 g/L TRIFLUDIMOXAZIN**

GROUP	<b>14</b>	HERBICIDE
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For the non-selective pre-plant knockdown and selective pre-emergence residual control of a range of broadleaf weeds and suppression of key grass weeds prior to planting of winter cereals and certain pulse crops; for non-selective pre-plant knockdown prior to the establishment of forestry plantations, fallow and fallow maintenance, around commercial, industrial agricultural buildings, public service areas, yards and fence lines; as per the DIRECTIONS FOR USE table.

**IMPORTANT: READ THE SAFETY DIRECTIONS BEFORE USING THIS PRODUCT**

CONTENTS: 1 L – 110 L

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**APVMA Approval No.: 86452/136491**

<b>SC</b>	FORMULATION TYPE <b>Suspension Concentrate</b>
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## DIRECTIONS FOR USE

### RESTRAINT

DO NOT apply by aircraft.  
DO NOT apply by vertical sprayer.  
DO NOT apply if heavy rains or storms are forecast within 3 days.  
DO NOT irrigate to the point of runoff for at least 3 days after application.  
DO NOT apply unless zero-till or no-till farming is practiced.  
DO NOT apply more than 240 mL/ha IBS in a single growing season.  
DO NOT apply prior to sowing crops with under-sown legumes

### SPRAY DRIFT RESTRAINTS

Specific definitions for terms used in this section of the label can be found at [apvma.gov.au/spraydrift](http://apvma.gov.au/spraydrift).

**DO NOT** allow bystanders to come into contact with the spray cloud.

**DO NOT** apply in a manner that may cause an unacceptable impact to native vegetation, agricultural crops, landscaped gardens and aquaculture production, or cause contamination of plant or livestock commodities, outside the application site from spray drift. The buffer zones in the buffer zone table below provide guidance but may not be sufficient in all situations. Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.

**DO NOT** apply unless the wind speed is between 3 and 20 kilometres per hour at the application site during the time of application.

**DO NOT** apply if there are hazardous surface temperature inversion conditions present at the application site during the time of application. Surface temperature inversion conditions exist most evenings one to two hours before sunset and persist until one to two hours after sunrise.

**DO NOT** apply by a boom sprayer unless the following requirements are met:

- Spray droplets are not smaller than a COARSE spray droplet size category
- Minimum distances between the application site and downwind sensitive areas are observed (see the table titled 'Buffer zones for boom sprayers in the 'Mandatory downwind buffer zones' section below).

Buffer zones for boom sprayers						
Application rate	Boom height above the target canopy	Bystander areas	Natural aquatic areas	Pollinator areas	Vegetation areas	Livestock areas
Up to maximum label rate	0.5 m or lower	Not required	60 metres	Not required	220 metres	5 metres
100 mL/ha or lower	0.5 m or lower	Not required	30 metres	Not required	70 metres	Not required
	1.0 m or lower	Not required	85 metres	Not required	220 metres	15 metres
100 mL/ha in combination with glyphosate	0.5 m or lower	Not required	30 metres	Not required	325 metres	Not required

**FOR NON-SELECTIVE PRE-PLANT KNOCKDOWN PRIOR TO PLANTING OF WINTER CEREAL CROPS AND CERTAIN PULSE CROPS; ESTABLISHMENT OF FORESTRY PLANTATIONS, FALLOW AND FALLOW MAINTENANCE, AROUND COMMERCIAL, INDUSTRIAL AGRICULTURAL BUILDINGS, PUBLIC SERVICE AREAS, YARDS AND FENCE LINES**

SITUATION	WEEDS CONTROLLED	WEED STAGE	RATE	CRITICAL COMMENTS
Prior to starting a fallow, fallow maintenance and prior to establishment of Forestry Plantations	See Weed Table A	Up to 6 leaf stage	100 mL/ha + 1% Hasten or high quality MSO	DO NOT apply post-sowing pre-emergent (PSPE).  ALWAYS apply VORAXOR HERBICIDE with 1% v/v Hasten Spray adjuvant or high quality methylated seed oil (MSO) for knockdown uses  Apply to weeds up to six leaf growth stage and actively growing under good conditions.  The 100 mL/ha rate will provide rapid burndown of label weeds but should not be relied upon for residual control of broadleaf weeds. Use higher rates as per label directions for residual control.  Refer to the plant-back interval table on this label and also refer to the appropriate companion product label, in case a longer re-cropping interval is required.  It is important to establish size and age of weeds (check root system as an indication) prior to application to ensure control. Some weeds that appear small may in fact be older and have an established root system and may not be completely controlled and regrowth may occur. Weeds that have been grazed or previously treated with herbicide can be difficult to manage and may not be fully controlled.
Pre-plant burndown prior to sowing wheat, barley, durum, oats or triticale				
Pre-plant burndown prior to sowing chickpea, faba bean or field pea				
To assist in weed control in Commercial, Industrial and Public Service areas, around Agricultural buildings, yards, fence lines	Annual ryegrass ( <i>Lolium rigidum</i> )	At least 1 true leaf to early tillering	100 mL/ha + recommended label rate of glyphosate herbicide or paraquat herbicide + 1% Hasten or high quality MSO	Some glyphosate resistant annual ryegrass biotypes have shown to be controlled prior to tillering (1 true leaf to 2 leaf) growth stage. The addition of glyphosate in the mixture has shown a positive impact on controlling glyphosate resistant annual ryegrass and will broaden spectrum to control other weeds present.  Any weed that has germinated but not achieved at least 1 true leaf may not be controlled. A follow up application of a knockdown herbicide with another mode of action may be required. Refer also to the product label for the knockdown herbicide used.
	Glyphosate resistant annual ryegrass ( <i>Lolium rigidum</i> )	At least 1 true leaf to 2 leaf		
	For the control of broadleaf and grass weeds listed in Table A and Table B	Up to 10 leaf (broadleaf weeds)  At least 1 true leaf to early tillering (grass weeds)	100 mL/ha + recommended label rate of glyphosate herbicide + 1% Hasten or high quality MSO	Refer to Critical Comments above and in addition:  <b>Summer Grass Weeds</b> Reduction of glyphosate activity on summer grasses may occur from the tank mix, which may result in reduced control of certain grass weeds. If summer grass weeds are present and their control is important, it is recommended that the highest labelled rate of glyphosate be used for the use situation encountered. Good coverage is essential for control of Silver Grass.  If summer grass weeds recover, a follow up application of a knockdown herbicide with another mode of action may be required. Refer also to the product label for the knockdown herbicide used.  Refer to the plant-back interval table on this label and also refer to the appropriate companion product label, in case a longer re-cropping period is required.

SITUATION (cont)	WEEDS CONTROLLED	WEED STAGE	RATE	CRITICAL COMMENTS
<p>Prior to starting a fallow, fallow maintenance and prior to establishment of Forestry Plantations</p> <p>Pre-plant burndown prior to sowing wheat, barley, durum, oats or triticale</p> <p>Pre-plant burndown prior to sowing chickpea, faba bean or field pea</p> <p>To assist in weed control in Commercial, Industrial and Public Service areas, around Agricultural buildings, yards, fence lines</p>	<p>For the control of broadleaf and grass weeds listed in Weed Table A as well as:</p> <p>Annual ryegrass (<i>Lolium spp.</i>)</p> <p>Brome grass (<i>Bromus spp.</i>)</p> <p>Chickweed (<i>Stellaria spp.</i>)</p> <p>Silver grass (<i>Vulpia spp.</i>)</p>	<p>Up to 10 leaf (broadleaf weeds)</p> <p>At least 1 true leaf to early tillering (grass weeds)</p>	<p>100 mL/ha + recommended label rate of paraquat herbicide plus 1 % Hasten or high quality MSO</p>	<p>Refer to Critical Comments above and in addition:</p> <p>Use of VORAXOR HERBICIDE with paraquat herbicide may increase the speed at which broadleaf and grass weeds develop visible symptoms and improve control of a range of grass and broadleaf weeds (compared to results achieved with paraquat applied alone).</p> <p>Apply only as a tank mix with recommended rates of herbicide containing paraquat, ensuring the correct mixing order is followed. See MIXING section below. Ensure to observe and understand all restraints, rates, safety directions, first aid instructions and general instructions on the paraquat product label. Good coverage is essential for control of Silver Grass.</p> <p>Hasten at 1% v/v must be added when applying VORAXOR HERBICIDE with paraquat herbicide.</p>

## PRE-EMERGENCE RESIDUAL CONTROL PRIOR TO SOWING CEREALS AND CERTAIN PULSE CROPS

SITUATION	WEEDS CONTROLLED	WEED STAGE	RATE	CRITICAL COMMENTS
<p><b>Immediately - 7 days</b> Prior to sowing wheat, barley, durum, oats or triticale</p> <p>Prior to sowing chickpea, faba bean or field pea</p> <p><b>For residual control</b></p>	<p>Amsinkia (<i>Amsinkia Spp.</i>)</p> <p>Capeweed (<i>Arctotheca calendula</i>)</p> <p>Cleavers/bedstraw (<i>Gallium spp.</i>)</p> <p>Climbing buckwheat/bindweed (<i>Polygonum convolvulus</i>)</p> <p>Field bindweed (<i>Convolvulus arvensis</i>)</p> <p>Crassula/stonecrop (<i>Crassula sieberiana</i>)</p> <p>Deadnettle (<i>Lamium amplexicale</i>)</p> <p>Fleabane (<i>Conyza spp.</i>)</p> <p>Fumitory (<i>Fumaria spp.</i>)</p> <p>Indian hedge mustard (<i>Sisymbrium orientale</i>)</p> <p>Mexican poppy (<i>Argemone ochroleuca</i>)</p> <p>Prickly lettuce (<i>Lactuca seriola</i>),</p> <p>Shepherd's purse (<i>Capsella bursa-pastoris</i>)</p> <p>Spear thistle (<i>Cirsium vulgare</i>)</p> <p>Sow thistle/milkthistle (<i>Sonchus oleracheus</i>)</p> <p>Toad rush (<i>Juncus bufonius</i>)</p> <p>Volunteer canola (<i>Brassica napus</i>)</p> <p>Wild radish (<i>Raphanus raphanistrum</i>)</p> <p>Wild turnip/turnip weed (<i>Rapistrum rugosum</i>)</p> <p>Wireweed (<i>Polygonum aviculare</i>)</p>	Pre-emergence	200 mL/ha	<p>For residual weed control, apply pre-sowing and incorporate by sowing (IBS) ensuring good physical separation of the planted seed and herbicide. Cultivation must not occur prior to the use of VORAXOR from the previous crop until the sowing of the current crop. Avoid throwing treated soil into adjacent crop rows. Wide points and harrows of any type must not be used at or after the seeding operation that incorporates VORAXOR HERBICIDE. To reduce the risk of crop effects, refer to <b>Crop safety</b> section in <b>GENERAL INSTRUCTIONS</b></p> <p>For best results apply just before sowing (refer to <b>Interval between Application and Sowing</b> in <b>GENERAL INSTRUCTIONS</b>).</p> <p>If emerged weeds are present at time of application, follow directions and critical comments for pre-plant knockdown application above – particularly the need for an MSO adjuvant. If grass weeds are present also consider a partner non-selective herbicide such as glyphosate or paraquat. For knockdown, observe weed growth stage as outlined in the pre-plant burndown section of the label. The increased rate of VORAXOR HERBICIDE will generally not result in increased control of larger weeds. Heavy weed burdens will reduce amount of herbicide able to reach soil and may compromise residual activity of VORAXOR HERBICIDE</p> <p>To optimise weed control apply directly to uncultivated soil. Weed control may be greatly reduced where weed seeds have been buried by cultivation prior to sowing.</p> <p>Weed control may be adversely affected by one of or a combination of factors below;</p> <ul style="list-style-type: none"> <li>- uneven application,</li> <li>- application to ridged or cloddy soil,</li> <li>- stubble, plant residue or other ground cover (particularly where this exceeds 50%) resulting in a barrier and there is insufficient following rainfall to transfer VORAXOR HERBICIDE to the soil surface and the germinating weed seeds.</li> <li>- Planting equipment or techniques that result in stubble drag,</li> <li>- germinated and emerged weeds that are not controlled by a knockdown herbicide,</li> <li>- insufficient rainfall within 7 to 10 days after application,</li> <li>- in soils prone to leaching,</li> <li>- rainfall which is sufficiently heavy to cause movement of the herbicide out of the weed seed zone.</li> </ul> <p>Weeds germinating in planted furrow may not be effectively controlled due to herbicide movement via sowing process.</p>



We create chemistry

	Suppression of annual ryegrass			For residual suppression of annual ryegrass, apply to light texture soils (>50% sand content in top 10cm). Residual suppression may be observed in other soil types depending on levels of moisture and position of annual ryegrass seed in the soil profile but is not guaranteed. Residual control will likely be compromised unless at least 15 mm rainfall occurs within 7-10 days following application, including at least a single day of over 5 mm, to maximise activity.
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CROP	WEEDS	WEED STAGE	RATE	CRITICAL COMMENTS
<b>7-21 days</b> Prior to sowing wheat, barley, durum, oats or triticale  <b>For residual control</b>	Amsinkia ( <i>Amsinkia Spp.</i> ) Capeweed ( <i>Arctotheca calendula</i> ) Cleavers/bedstraw ( <i>Gallium spp.</i> ) Climbing buckwheat/bindweed ( <i>Polygonum convolvulus</i> ) Field bindweed ( <i>Convolvulus arvensis</i> ) Crassula/stoncrop ( <i>Crassula sieberiana</i> ) Deadnettle ( <i>Lamium amplexicale</i> ) Fleabane ( <i>Conyza spp.</i> ) Fumitory ( <i>Fumaria spp.</i> ) Indian hedge mustard ( <i>Sisymbrium orientale</i> ) Mexican poppy ( <i>Argemone ochroleuca</i> ) Shepherd's purse ( <i>Capsella bursa-pastoris</i> ) Spear thistle ( <i>Cirsium vulgare</i> ) Spiny emex ( <i>emex australis</i> ) Sow thistle/milkthistle ( <i>Sonchus oleracheus</i> ) Toad rush ( <i>Juncus bufonius</i> ) Volunteer canola ( <i>Brassica napus</i> ) Wild radish ( <i>Raphanus raphanistrum</i> ) Wild turnip/turnip weed ( <i>Rapistrum rugosum</i> ) Wireweed <i>Polygonum aviculare</i> )	Pre-emergence	240 mL/ha	<p>Use of 240 mL/ha rate allows earlier application between 7 to 21 days prior to sowing however any weed escapes after application and before sowing must be controlled by suitable knockdown herbicide.</p> <p><b>Using VORAXOR HERBICIDE followed by a pre-emergence herbicide</b> – Use this rate and timing if splitting the application of VORAXOR HERBICIDE and a specific grass pre-emergent herbicide. Apply VORAXOR HERBICIDE 7 to 21 days pre-sowing and apply the pre-emergent herbicide per its label requirements. VORAXOR HERBICIDE should be incorporated by sowing (IBS) ensuring good physical separation of the planted seed and herbicide. To reduce the risk of crop effects, refer to <b>Crop safety</b> section in <b>GENERAL INSTRUCTIONS</b>. VORAXOR HERBICIDE will remain viable on the soil surface until incorporated by sowing (IBS). Some incorporation and activity may occur due to rainfall during this period, however any weed escapes after application and before sowing must be controlled by suitable knockdown herbicide.</p> <p>If emerged weeds are present at time of application, follow directions and critical comments for pre-plant knockdown application above – particularly the need for an MSO adjuvant. If grass weeds are present also consider a partner non-selective herbicide such as glyphosate or paraquat. For knockdown, observe weed growth stage as outlined in the pre-plant burndown section of the label. The increased rate of VORAXOR HERBICIDE will generally not result in increased control of larger weeds. Heavy weed burdens will reduce amount of herbicide able to reach soil and may compromise residual activity of VORAXOR HERBICIDE</p> <p>To optimise weed control apply directly to uncultivated soil. Weed control may be greatly reduced where weed seeds have been buried by cultivation prior to sowing.</p> <p>Weed control may be adversely affected by one of or a combination of factors below;</p> <ul style="list-style-type: none"> <li>- uneven application,</li> <li>- application to ridged or cloddy soil,</li> <li>- stubble, plant residue or other ground cover (particularly where this exceeds 50%) resulting in a barrier and there is insufficient following rainfall to transfer VORAXOR HERBICIDE to the soil surface and the germinating weed seeds.</li> <li>- Planting equipment or techniques that result in stubble drag,</li> <li>- germinated and emerged weeds that are not controlled by a knockdown herbicide,</li> <li>- insufficient rainfall within 7 to 10 days after application,</li> <li>- in soils prone to leaching,</li> <li>- rainfall which is sufficiently heavy to cause movement of the herbicide out of the weed seed zone.</li> </ul> <p>Weeds germinating in planted furrow may not be effectively controlled due to herbicide movement via sowing process.</p>



We create chemistry

	Suppression of annual ryegrass			For residual suppression of annual ryegrass, apply to light texture soils (>50% sand content in top 10cm). Residual suppression may be observed in other soil types depending on levels of moisture and position of annual ryegrass seed in the soil profile but is not guaranteed. Residual control will likely be compromised unless at least 15 mm rainfall occurs within 7-10 days following application, including at least a single day of over 5 mm, to maximise activity.
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**NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION.**

#### **WITHHOLDING PERIOD**

##### **HARVEST:**

CEREALS: NOT REQUIRED WHEN USED AS DIRECTED

Chickpea, Faba bean or Field pea: NOT REQUIRED WHEN USED AS DIRECTED

##### **GRAZING:**

CEREALS: DO NOT GRAZE OR CUT FOR STOCKFOOD FOR 6 WEEKS AFTER APPLICATION.

Chickpea, Faba bean or Field pea: DO NOT GRAZE OR CUT FOR STOCKFOOD FOR 6 WEEKS AFTER APPLICATION.

FALLOW GRAZING: DO NOT GRAZE FOR 5 WEEKS AFTER APPLICATION

#### **LIVESTOCK DESTINED FOR EXPORT MARKETS (FALLOW GRAZING)**

The fallow grazing withholding period only applies to stock slaughtered for the domestic market. Some export markets apply different standards. To meet these standards, ensure that in addition to complying with the grazing withholding period, the Export Slaughter Interval is observed before stock are sold or slaughtered.

#### **EXPORT SLAUGHTER INTERVAL (ESI) - 30 DAYS (FALLOW GRAZING )**

Livestock that has grazed on treated fallow should be placed on clean feed for 30 days prior to export slaughter. This ESI requirement must be declared on any Commodity Vendor Declaration accompanying traded fodder. Growers should note that suitable Maximum Residue Limits (MRLs) or import tolerances may not exist in all export markets for crops treated with Voraxor Herbicide. Additionally, some export markets have established MRLs different to those in Australia. Please check with your peak industry body or BASF Australia Ltd for the latest information on MRLs and import tolerances before using Voraxor Herbicide.



Weed Table A	
Amaranth	<i>Amaranthus spp.</i>
Australian crassula	<i>Crassula sieberiana</i>
Bindweed/climbing buckwheat	<i>Fallopia convolvulus</i>
Blackberry nightshade	<i>Solomon nigrum</i>
Caltrop	<i>Tribulus terrestris</i>
Capeweed	<i>Arctotheca calendula</i>
Common Catsear	<i>Hypochaeris radicata</i>
Crassula/stonecrop	<i>Crassula colorata</i>
Fat Hen	<i>Chenopodium album</i>
Fleabane	<i>Conyza spp.</i>
Heliotrop	<i>Heliotropium europaeum</i>
Khaki Weed	<i>Alternanthera repens</i>
Marshmallow/Small flowered mallow	<i>Malva parviflora</i>
Medics	<i>Medicago spp.</i>
Muskweed	<i>Myagrum perfoliatum</i>
Patersons curse	<i>Echium plantagineum</i>
Prickly lettuce	<i>Lactuca serriola</i>
Scarlet Pimpernel	<i>Anagallis arvensis</i>
Slender thistle	<i>Carduus pycnocephalus</i>
Shepherd's purse	<i>Capsella bursa pastoris</i>
Sowthistle	<i>Sonchus oleraceus</i>
Spiny emex	<i>Emex australis</i>
Stinging nettle	<i>Urtica dioica</i>
Storksbill	<i>Erodium spp.</i>
Wild radish	<i>Raphanus raphanistrum</i>
Volunteer canola max 4 leaf including Roundup Ready® varieties	<i>Brassica napus</i>
Volunteer cotton seedlings including Roundup Ready Flex® varieties	<i>Gossypium spp.</i>
Volunteer pulse crops including lupin and chickpea	<i>Lupinus angustifolius</i> <i>Cicer arietinum</i>
Wild turnip/turnip weed	<i>Rapistrum rugosum</i>
Wireweed	<i>Polygonum aviculare</i>

Weed Table B	
Amsinckia	<i>Amsinckia spp.</i>
Annual ryegrass	<i>Lolium spp.</i>
Barley grass	<i>Hordium spp.</i>
Brome grass	<i>Bromus spp.</i>
Charlock	<i>Sinapis arvensis</i>
Cowvine/peachvine	<i>Ipomoea lonchophylla</i>
Indian hedge mustard	<i>Sisymbrium orientale</i>
Kochia	<i>Kochia scoparia</i>
Penny cress	<i>Thlaspi arvense</i>
Prickly lettuce	<i>Lactuca serriola</i>
Silver grass	<i>Vulpia spp.</i>
Snoutbean	<i>Rhynchosia minima</i>
Volunteer/wild oat	<i>Avena spp.</i>

## GENERAL INSTRUCTIONS

VORAXOR HERBICIDE is a non-selective burndown and selective pre-emergence herbicide.

### For knockdown uses:

VORAXOR HERBICIDE is a fast acting contact herbicide and aids in control of weeds through a process of membrane disruption. The foliar uptake of VORAXOR HERBICIDE is rapid and plant desiccation can occur within 4 days of application. Application of VORAXOR HERBICIDE to emerged weeds should target small actively growing weeds.

VORAXOR HERBICIDE may also be used alone with a suitable adjuvant for control of a range of broadleaf weeds as per the directions for use table. When used in situations where emerged weeds are present the addition of glyphosate or paraquat based herbicides will broaden weed spectrum and may improve final control

### For residual control:

At label rates of 200 mL/ha to 240 mL/ha VORAXOR HERBICIDE ha provides residual control of a wide range of broadleaf weeds as well as the suppression of key grass weeds. Crop selectivity of VORAXOR HERBICIDE when applied for residual control of weeds is achieved through a combination of metabolic as well as placement selectivity.

Use rates for residual control are 200 mL/ha within 7 days prior to sowing (0-7 days before sowing) or 240 mL/ha if greater than 7 days before sowing (7-21 days before sowing). The 240 mL/ha rate should not be used within 7 days of sowing as there is increased chance of crop damage occurring.

In situations of dry sowing, or where conditions are less than ideal for even pre-emergence herbicide incorporation (rough seed bed, presence of excess soil clods, increased surface residues, etc) the ability to increase rate slightly and delay sowing for at least 7 days can improve weed control performance and provide more utility to end users. Refer to APPLICATION section for factors that may adversely affect weed control.

### Crop safety:

For residual weed control, apply pre-sowing and incorporate by sowing (IBS) ensuring good physical separation of the planted seed and herbicide. The seeder should be set up to move herbicide treated soil out of the planting furrow to provide crop safety. Avoid throwing treated soil into adjacent crop rows. Wide points and harrows of any type must not be used at or after the seeding operation that incorporates VORAXOR HERBICIDE. In addition to moving treated soil out of the sowing furrow, seeder setup should also result in minimizing the chance of treated soil falling back into the furrow. Seeder type alone does not guarantee herbicide and seed separation so attention to setup at planting is required.

**Using VORAXOR HERBICIDE in conjunction with a grass weed pre-emergence herbicide** - If planning to use a specific grass weed pre-emergent herbicide such as Luximax®, Sakura\*, Boxer Gold\*, Overwatch\*, prosulfocarb, triallate or trifluralin as a tank mix with VORAXOR HERBICIDE, additional caution is required as increased crop damage may occur. Tank mixes of multiple herbicides requiring physical separation results in higher loading of total herbicide and therefore imposes a greater potential impact on crops. **Refer to guidelines on both product labels for guidance on factors that contribute to performance and crop tolerance ensuring all parameters of all product labels are met.** Increasing sowing depth to >30mm, reducing speed of travel at sowing and avoiding use when heavy rainfall is forecast soon after planting will be most effective measures for increasing physical separation of seed and herbicides to gain increased crop selectivity, particularly on sandy or light soils and where furrow wall collapse occurs.

A decision to mix pre-emergent herbicides should be made based on weed burden and resistance management issues where some potential impact on crop selectivity is outweighed by weed control needs. Avoid throwing treated soil into adjacent crop rows. **Refer to guidelines on both product labels for guidance on factors that contribute to performance and crop tolerance ensuring all parameters of all product labels are met.**

## SYMPTOMS

VORAXOR HERBICIDE when applied post emergence to weeds is rapidly absorbed through the foliage of plants. Within a few hours following application, the foliage of susceptible weeds will show signs of desiccation, and in subsequent days necrosis and death of the plant. In a pre-emergent situation VORAXOR HERBICIDE is taken up by roots and hypocotyl resulting in lack of germination of weed seeds. Any affected plants that germinate may show signs of necrosis particularly in tissue that has been in contact with treated soil such as stems and first emerging leaves.

If crop damage occurs from pre-emergence use pattern, symptoms are necrosis of 1<sup>st</sup> emerged leaf at axis of leaf and stem resulting in leaf 1 senescing and dropping from the plant. In trials this symptom has not been associated with negative impact on crop yield. In the case of winter pulse crops, if crop damage occurs from pre-emergence use pattern, symptoms are necrosis of cotyledons and potentially stems at the soil surface. In trials this symptom has not been associated with negative impact on crop yield.

## COMPATIBILITY

When Applying VORAXOR HERBICIDE to emerged weeds Hasten Spray Adjuvant or an alternate high quality methylated seed oil (MSO) should always be used. Crop oil concentrates or non-ionic surfactants are not recommended when using VORAXOR HERBICIDE for control of emerged weeds.

For most uses as per the Directions for Use VORAXOR HERBICIDE may be tank mixed with a good quality glyphosate or paraquat based herbicide. If mixing with paraquat it is essential that the correct mixing sequence is followed requiring VORAXOR HERBICIDE to be added to the tank prior to the selected paraquat product. Refer to MIXING section below.

VORAXOR HERBICIDE is also physically compatible with the following products in a two-way tank-mix (maintain constant agitation throughout): Arcade\*, Ally\*, Avadex\* Xtra, Amicide\* Advance 700, Amicide\* 625, Balance\*, Basta\*, Boxer Gold\*, Dual Gold\*, Glean\*, Garlon\*, glyphosate, Logran\*, Lontrel Advanced\*, Luximax®, Overwatch\*, paraquat, prosulfocarb, Nufarm Surpass\* 475, Rifle\*, Rustler\*, Sakura\*, Simazine 900 WDG, Spinnaker 700 WDG, Terbyne Xtreme\*, triallate, trifluralin and Verdict\* 520 EC.

As formulations of other manufacturer's products are beyond the control of BASF, and the quality of water may vary with location, all mixtures should be tested prior to mixing commercial quantities. When determining physical compatibility of a product not listed above, or in mixes with VORAXOR more than a two-way mix, conduct a jar test prior to mixing commercial quantities.

## MIXING

VORAXOR is a suspension concentrate (SC) formulation. When using in a tank mix with other products, the following mix order should be observed;

1. Half fill the spray tank with water. Maintain constant agitation;
2. Add any water dispersible granule (WDG/WG), wettable powder (WP), dry flowable (DF), water soluble granule (SG) formulated products first and allow dispersion
3. Add any soluble concentrate (SC) formulations including **VORAXOR HERBICIDE**
4. Add any other emulsifiable concentrate (EC) formulations and micro-emulsions (ME)
5. Add any water-soluble salts including soluble liquids (SL)
6. Add any adjuvants as required
7. Add remaining water

## Adjuvants

VORAXOR HERBICIDE requires the use of an MSO type adjuvant such as Hasten to allow better uptake into the target weed for full efficacy in burn down uses. Use of non-ionic surfactants and mineral oil based adjuvants will likely result in reduced efficacy.

## TIMING

**For burndown uses:** application should be made to small, actively growing weeds as per the directions for use table. When applying VORAXOR HERBICIDE to emerged weeds, best control is achieved when weeds are exposed and are not shielded by other weeds and/or stubble.

**For residual control:** for residual weed control, apply pre-sowing and incorporate by sowing (IBS) as per the directions for use table. Use rates for residual control are 200 mL/ha within 7 days prior to sowing (0-7 days before sowing) or 240 mL/ha if greater than 7 days before sowing (7-21 days before sowing). **The 240 mL/ha rate should not be used within 7 days of sowing.**

Half fill the spray tank with clean water. Commence agitation and add the required amount of product to the tank. Maintain agitation whilst filling the tank and throughout the spraying operation.

## APPLICATION

The best application conditions are when soil is moist, weather fine and rain unlikely within one hour or as specified for any partner herbicide. VORAXOR HERBICIDE is rain fast one hour after application. Burndown activity may be reduced if rain or irrigation occurs within one hour of application. Extremes in environmental conditions e.g. temperature and moisture, soil conditions and/or cultural practices may affect the activity of VORAXOR HERBICIDE.

**For knockdown uses** against emerged weeds, VORAXOR HERBICIDE is a light activated herbicide and under intense light, warm and moist conditions, herbicide symptoms may be accelerated. Under very dry conditions, the expression of herbicidal symptoms is delayed and weeds hardened off by drought are less susceptible to VORAXOR HERBICIDE.

Stubble loads will interfere with coverage and could affect the performance of VORAXOR HERBICIDE. Reduced performance may also occur where weeds are covered with dust or silt.

**For residual control** of weeds apply 200 mL/ha within 7 days prior to sowing (0-7 days before sowing) or 240 mL/ha if greater than 7 days before sowing (7-21 days before sowing). **The 240 mL/ha rate should not be used within 7 days of sowing.** If emerged weeds are present at the time of application the addition of a suitable knockdown partner such as glyphosate or paraquat as well as MSO type adjuvant such as Hasten should be added. For residual weed control, apply pre-sowing and incorporate by sowing (IBS). To reduce the risk of crop effects, refer to **Crop Safety** in **GENERAL INSTRUCTIONS**.

Pre-emergent weed control may be adversely affected by one of or a combination of factors below;

- uneven application,
- application to ridged or cloddy soil,
- stubble, plant residue or other ground cover particularly where this exceeds 50%,
- planting equipment or techniques that result in stubble drag,
- germinated and emerged weeds that are not controlled by a knockdown herbicide,
- insufficient rainfall within 7 to 10 days after application,
- in soils prone to leaching,
- rainfall which is sufficiently heavy to cause movement of the herbicide out of the weed seed zone.

Weeds germinating in planted furrow may not be controlled due to herbicide movement via sowing process.

## Ground sprayers

Apply VORAXOR HERBICIDE by ground spraying equipment only.



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### Nozzles

Spray equipment should be properly calibrated. Voraxor should be applied at the recommended rate in sufficient water to give thorough coverage of weeds. Application volumes of 80 to 250 litres per hectare are recommended. Use higher water volumes if weed infestation is dense and/or tall. To minimise off-target drift use the lowest pressure and boom height which provides uniform coverage.

### SPRAYER CLEANUP

Following use, the sprayer should be cleaned. Empty the tank completely and drain the whole system. Quarter fill the tank and add a liquid detergent such as Surf\* or Omo\* at 500mL/100L of water. Circulate through the pump, the hoses and nozzles and then drain. Triple rinse with water. Finally remove and clean all filters (tank, in-line and nozzle) separately. This will provide an effective cleaning technique for Voraxor® Herbicide. A boom cleaner may be used as part of the procedure.

### CROP PLANT BACK & ROTATION RECOMMENDATIONS

Depending on use rate, VORAXOR HERBICIDE will provide long-term residual activity and certain crops show sensitivity to soil residues. Refer to the following table for application-to-sow intervals applicable to VORAXOR HERBICIDE. For advice on crops not listed below, contact your local BASF Australia Ltd representative.

Application of Voraxor Herbicide at 100 mL/ha

1 hour	1 month	6 weeks	4 months
Barley, Wheat, Oats, Corn/maize, Sorghum, Chickpeas, Faba beans, Field pea, Sub clover	Mungbean	Cotton Canola	Sunflower Other crops

Application of Voraxor Herbicide at 200-240ml/ha

1 hour	1 month	3 months	6 months	9 months
Wheat* Barley* Oats* Triticale*	Chickpeas**, Faba beans**, Field peas**, Sorghum, Mungbeans	Lentils Lupins Cotton	Sunflower	Canola Safflower

\* 1 hour plant back to winter cereals is minimum interval for pre-emergent use and all label directions for this use pattern should be followed.

\*\* Chickpeas, faba beans and field peas can be planted within 0-7 days of application of Voraxor Herbicide. After rainfall events herbicide becomes dispersed in soil making it difficult to ensure seed and herbicide separation and thus a 1 month plant back is established if spraying and sowing does not occur within 7 days.

Check the label of any product mixed with VORAXOR HERBICIDE, to determine any plant back periods or restrictions on use.

## **RESISTANT WEEDS WARNING**

<b>GROUP</b>	<b>14</b>	<b>HERBICIDE</b>
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VORAXOR HERBICIDE is a member of the pyrimidindiones group of herbicides. Its mode of action is through a process of membrane disruption, which is initiated by the inhibition of the enzyme protoporphyrinogen oxidase. This inhibition interferes with the chlorophyll biosynthetic pathway. For weed resistance management VORAXOR HERBICIDE is a Group 14 herbicide. Some naturally occurring weed biotypes resistant to VORAXOR and other Group G herbicides may exist through normal genetic variability in any weed population and increase if these herbicides are used repeatedly. These resistant weeds will not be controlled by VORAXOR HERBICIDE or other Group 14 herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, BASF Australia Limited accepts no liability for any losses that may result from the failure of VORAXOR HERBICIDE or other Group 14 herbicides.

## **PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT**

Very toxic to aquatic life. DO NOT contaminate wetlands or watercourses with this product or used containers.

## **STORAGE AND DISPOSAL**

Store in the closed, original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight. Triple-rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.

## **SAFETY DIRECTIONS**

Wash hands after use. After each day's use wash contaminated clothing.

## **FIRST AID**

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26; New Zealand 0800 764 766.

## **ADDITIONAL USER SAFETY INFORMATION**

WARNING: DO NOT use if pregnant.

## **SAFETY DATA SHEET**

Additional information is listed in the Safety Data Sheet available from your supplier.

## **CONDITIONS OF USE**

All conditions and warranties rights and remedies implied by law or arising in contract or tort whether due to the negligence of BASF Australia Ltd or otherwise are hereby expressly excluded so far as the same may legally be done provided however that any rights of the Buyer pursuant to non-excludable conditions or warranties of the Competition and Consumer Act 2010 or any relevant legislation of any State are expressly preserved but the liability of BASF Australia Ltd or any intermediate Seller pursuant thereto shall be limited if so permitted by the said legislation to the replacement of the goods sold or the supply of equivalent goods and all liability for indirect or consequential loss or damage of whatsoever nature is expressly excluded. This product must be used or applied strictly in accordance with the instructions appearing hereon. This product is solely sold for use in Australia and must not be exported without the prior written consent of BASF Australia Ltd.



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APVMA Approval Number: 86452/136491

Batch No:

Date of Manufacture:

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\*=other company trademark

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FOR SPECIALIST ADVICE IN AN

**EMERGENCY ONLY**

**PHONE 1800 803 440**

TOLL FREE - ALL HOURS - AUSTRALIA WIDE

**GHS STATEMENTS**

May cause damage to organs through prolonged or repeated exposure. May damage fertility. Suspected of damaging the unborn child. Very toxic to aquatic life with long lasting effects. Do not breathe dust/gas/mist/vapours. IF exposed or concerned: Call a POISON CENTRE or doctor/physician. Get medical advice/attention if you feel unwell. Collect spillage. Store locked up.