



Product Name: Sinon Haloxyfop 520 EC Herbicide
APVMA Approval No: 85106/112296

Label Name: Sinon Haloxyfop 520 EC Herbicide

Signal Headings: POISON
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Constituent Statements: 520 g/L HALOXYFOP present as the haloxyfop-R-methyl ester

Mode of Action: GROUP A HERBICIDE

Statement of Claims: For the post-emergent control of a wide range of annual and perennial grass weeds in grain legume and oilseed crops, lucerne, medic and clover pasture and seed crops, forestry, bananas, citrus, grapes, pineapples, pome and stone fruit, pyrethrum, tropical fruit and nut crops as specified in the Directions for Use

Net Contents: 250mL to 20L

Restraints: DO NOT apply to weeds which may be stressed (not actively growing) due to prolonged periods of extreme cold, moisture stress (waterlogged or drought affected), poor nutrition or previous herbicide treatment as reduced levels of control may result.
DO NOT spray if rain is likely to occur within one hour.

Directions for Use:

Other Limitations: -

Withholding Periods: WITHHOLDING PERIODS

HARVESTING WITHHOLDING PERIODS
NOT REQUIRED WHEN USED AS DIRECTED FOR:
 Canola, Chickpeas, Cotton, Cowpea, Faba beans, Field peas, Lentils, Linola, Linseed, Lupins, Mung beans, Navy beans, Peanuts, Soybeans, Sunflowers and Vetch
DO NOT HARVEST FOR:
 Medic and Clover seed crops 7 DAYS AFTER APPLICATION

STOCK FOOD WITHHOLDING PERIODS
DO NOT GRAZE OR CUT FOR STOCK FOR:
 Canola, Chickpeas, Cotton, Cowpea, Faba beans, Field peas, Lentils, Linola, Linseed, Lupins, Mung beans, Navy beans, Peanuts, Soybeans, Sunflowers and Vetch: 28 DAYS AFTER APPLICATION
 Lucerne: 21 DAYS AFTER APPLICATION
 Medic and Clover pasture: 7 DAYS AFTER APPLICATION

COTTON GIN TRASH MUST NOT BE FED TO ANIMALS

Trade Advice:	-
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General Instructions:	
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Resistance Warning:	<p>RESISTANT WEEDS WARNING</p> <p>GROUP A HERBICIDE</p> <p>Sinon Haloxyfop 520 EC Herbicide is a member of the aryloxyphenoxy propionate group of herbicides. Sinon Haloxyfop 520 EC Herbicide has the inhibition of acetyl CoA carboxylase mode of action. For weed resistance management, Sinon Haloxyfop 520 EC Herbicide is a Group A herbicide. Some naturally occurring weed biotypes resistant to Sinon Haloxyfop 520 EC Herbicide and other Group A herbicides may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by Sinon Haloxyfop 520 EC Herbicide or other Group A herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Sinon Australia Pty Limited accepts no liability for any losses that may result from the failure of Sinon Haloxyfop 520 EC Herbicide to control resistant weeds.</p>
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Precautions:	-
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Protections:	<p>PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS Sinon Haloxyfop 520 EC Herbicide damages cereals and grasses. DO NOT apply under weather conditions, or from spraying equipment, that may cause spray to drift onto nearby susceptible crops/plants, cropping lands or pastures. Cereal crops or grasses planted within twelve weeks of application may be damaged by the residual effects of Sinon Haloxyfop 520 Herbicide, particularly on light and red soils.</p> <p>PROTECTION OF LIVESTOCK DO NOT graze or cut treated crops for stock food except as specified under withholding periods.</p> <p>PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT</p>
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Sinon Haloxyfop 520 EC Herbicide is toxic to fish. DO NOT contaminate streams, rivers or waterways with the chemical or used containers.

Storage and Disposal:	<p>STORAGE AND DISPOSAL</p> <p>Store in 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.</p> <p>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 for appropriate disposal to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm 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. This container can be recycled if it is clean, dry, free of visible residues and has the drumMUSTER logo visible.</p> <p>Triple rinse container before disposal. Dispose of rinsate by adding to the spray tank. Do not dispose of undiluted chemicals on site. Wash outside of the container and the cap.</p> <p>Store cleaned container in a sheltered place with cap removed. It will then be acceptable for recycling at a drumMUSTER collection or similar container management site. The cap should not be replaced but may be taken separately. Refillable containers</p> <p>Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.</p> <p>SMALL SPILL MANAGEMENT</p> <p>Wear protective equipment (see SAFETY DIRECTIONS). Apply absorbent material such as earth, sand, cat litter or clay granules to the spill. When absorption is complete, sweep up material and contain in a refuse vessel for disposal (see STORAGE AND DISPOSAL section). If necessary wash the spill area with an alkali detergent and water and absorb this wash liquid for disposal as described above.</p>
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Safety Directions:	Harmful if swallowed. Will irritate the eyes and skin. Avoid contact with eyes and skin. When opening container, preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and washable hat, elbow-length PVC gloves and face shield or goggles. After each day's use, wash gloves and face shield or goggles and contaminated clothing. Wash hands after use.
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First Aid Instructions:	<p>FIRST AID</p> <p>If poisoning occurs contact a doctor or Poisons Information Centre. Phone Australia 13 11 26. If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.</p>
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First Aid Warnings:	-
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DIRECTIONS FOR USE

Table 1a. Winter crops – Canola, Chickpeas, Faba beans, Field peas, Lentils, Linola, Linseed, Lupins, Lucerne, Vetch, Medic and Clover pastures or seed crops

Weeds Controlled	Weed Growth Stage	Rate (mL/ha)		Critical Comments
		With Uptake ¹ Spraying Oil	With non-ionic wetter ²	
Annual Ryegrass	2 to 4 leaf	75	100	CANOLA, LINOLA AND LINSEED DO NOT apply after the 8-leaf stage of the crop. DO NOT apply after the commencement of stem elongation. This means that application must not occur after the 8-leaf stage, or if stem elongation commences before the 8-leaf stage, application must not occur after stem elongation has commenced. DO NOT apply more than 1 application of herbicide containing haloxyfop per crop. DO NOT apply after grazing.
	early tillering	100	100	
Barley Grass Brome grass Paradoxa grass Volunteer cereals	2 to 4 leaf	50	75	^{1,2} See GENERAL INSTRUCTIONS, Spraying oils/wetters section.
	early tillering	75	100	
Wild Oats WA, SA, Vic, Tas, southern & central NSW	2 to 4 leaf	37.5	50	FIELD PEAS AND CANOLA: The only oil recommended for use with Sinon Haloxyfop 520 is Uptake* Spraying Oil. Sinon Haloxyfop 520 + Lontrel 750 SG + Uptake* Spraying Oil are compatible and selective to canola. This tank-mix is also compatible with atrazine and selective to triazine tolerant canola.
	early tillering	50	75	
Wild Oats northern NSW & Qld	2 to 4 leaf	50	75	LUPINS AND FIELD PEAS: Mixtures with Brodal or simazine may cause crop yellowing and separate applications are recommended. CHICKPEAS, FABA BEANS, LENTILS AND VETCH, LINOLA, LINSEED: Broadleaf herbicides should not be added to Sinon Haloxyfop 520. Apply Sinon Haloxyfop 520 and broadleaf herbicides at least a week apart.
	early tillering	75	100	

Table 1b. Winter crop growth stage application windows

Crop	Crop Growth Stage
Lucerne, Medic and Clover pastures or seed crops.	Apply from 2 nd trifoliate leaf onwards. For <i>Erodium</i> spp. spraying, apply from cotyledon crop stage onwards.
Canola, Linola, Linseed	Apply from 2 nd leaf to 8 leaf stage of crop growth. DO NOT apply after the commencement of stem elongation. This means that application must not occur after the 8-leaf stage, or if stem elongation commences before the 8-leaf stage, application must not occur after stem elongation has commenced.
Chickpeas, Faba beans, Field peas, Lentils, Lupins, Vetch	Apply from 2 nd leaf, 2 nd node or 2 nd branch prior to flowering.

Table 2a. Lucerne, Medic and Clover seed crops and pastures. See table 1b for crop stages.

Weeds Controlled	Weed Growth Stage	Rate (mL/ha) with Uptake ¹ Spraying Oil	Critical Comments
Prairie grass (<i>Bromus catharticus</i>)	Up to early tillering	100	¹ See GENERAL INSTRUCTIONS , Spraying oils/wetters section.
Musky or ferny leaf Storksbill: (<i>Erodium moschatum</i>) Common Crowsfoot or Common Storksbill (<i>Erodium cicutarium</i>)	Up to 6 leaf or 5cm diameter	50 – 75 ³	³ Use lower when growing conditions and crop or pastures competition are good and when weed populations are below 100 plants/m ² . Use the higher rate when weed population re above 100 plants/m ² or when crop or pasture competition is poor.
Long or shiny leaf Storksbill (<i>E. botrys</i>)	Up to 8 leaf or 5cm diameter	75 - 100	NOTE: Storksbill may not be controlled if simazine or Broadstrike are tank-mixed with Sinon Haloxyfop 520 Herbicide. LUCERNE, CLOVER OR MEDIC PASTURES If grazed or cut for hay immediately prior to treatment delay application until all grasses have fully expanded leaves. Use 75mL + spraying oil or 100mL + wetter/ha. (See GENERAL INSTRUCTIONS , Spraying oils/wetter section). If Silver grass (<i>Vulpia</i> spp.) is presented in pasture, simazine should be tank mixed with the higher rate of Sinon Haloxyfop 520 EC Herbicide plus a no-ionic wetter.

Table 2b. Lucerne, Medic and Clover seed crops only – not to be used for stockfeed. See table 1b for crop stages

Weeds Controlled	Weed Growth Stage	Rate (mL/ha) with Uptake ¹ Spraying Oil	Critical Comments
Couch grass (suppression), Rhodes grass (control)	Tillering seedlings	150 + 150 ⁴	¹ See GENERAL INSTRUCTIONS , Spraying oils/wetters section.
Couch grass (control), Rhodes grass (control)	Established stands	400 – 800	⁴ For best suppression of couch or control of Rhodes grass, make 2 applications of Sinon Haloxyfop 520 Herbicide 2-4 weeks apart. Time second application to coincide with tillering stage of weeds and just after irrigation or significant rain. Only treat actively growing weeds, which are not moisture stressed. Use these rates for control of couch and Rhodes grass.

Table 3a. Summer Crops – Cotton, Cowpea, Lucerne, Mung bean, Navy beans, Peanuts, Soybeans, Sunflowers

Weeds Controlled	Weed Growth Stage	Rate (mL/ha) with Uptake ¹ Spraying Oil	Critical Comments
Australian millet	2 leaf to tillering up to 15cm	150	¹ See GENERAL INSTRUCTIONS , Spraying oils/wetters section.
Barnyard grass	2 to 5 leaf	100	NAVY BEAN, PEANUTS, SOYBEANS For broadleaf weed control, Sinon Haloxyfop 520 EC Herbicide at 150mL/ha plus wetter may be tank mixed with Blazer® (except on Navy beans) or Basagran. Tank mixes may cause transient leaf spotting on the crop but do not normally affect yield.
	tillering up to 15cm	150	
Crowsfoot grass Green Panic grass Johnson grass (Rhizome)	2 leaf to tillering up to 15cm	150	DO NOT tank mix broadleaf herbicides with Sinon Haloxyfop 520 EC Herbicide if grasses have begun tillering or if the grasses are under moisture stress.
Johnson grass (seedling) Liverseed grass (seedling) Mossman River grass	2 to 5 leaf	100	DO NOT add Uptake Spraying Oil with Blazer or Basagran.
	tillering up to 15cm	150	
Summer grass	2 leaf to tillering up to 15cm	150	DO NOT use Blazer or Basagran tank-mixes on Cowpeas.
Volunteer cereals	2 to 4 leaf	100	
	tillering up to 15cm	150	

Table 3b. Summer crop growth stage application windows

Crop	Crop Growth Stage
Lucerne	Apply from 2 nd trifoliolate leaf onwards
Cowpea, Mung beans, Navy beans, Soybeans	Apply from 2 nd leaf to flowering
Peanuts	Apply from 5cm to pegging
Cotton	Apply from 2 nd leaf to before the onset of flowering
Sunflowers	Apply from 2 nd leaf to head initiation

Table 4. Annual and Perennial grasses and *Erodium* spp. In Orchard, Vine, and Plantation crops, Forestry and Pyrethrum

Crop	Crop Growth Stage	Weeds Controlled	Weed Stage	Rate (mL/ha) with Uptake ¹ Spraying Oil	Critical Comments
Orchard, Vine and plantation Crops including: Apples, Avocado, Banana, Blueberry, Citrus, Custard apple, Feijoa, Grapewines, Guava, Kiwifruit, Litchi (Lychee), Longan, Mango, Nashi, Nut trees, Passionfruit, Paw paw, Pear, Persimmon, Pineapple, Rambutan, Stone Fruit	All growth stages	Perennial grasses, Couch, Rhodes grass, Slender Rats Tail grass	Established stands	400 - 800	<p>¹ See GENERAL INSTRUCTIONS, Spraying oils/wetters section.</p> <p>Spray should be directed to the base of the tree or vine avoiding contact with frit and foliage.</p>
		Buffel grass, Green panic, Johnson grass, Kikuyu, <i>Paspalum</i> spp., <i>Setaria</i> spp.	Vegetative to early tillering	200	
			Late tillering	400	
		Annual grasses; Annual ryegrass, Barley grass, Barnyard grass, Brome grass, Crowsfoot grass, Lesser Canary grass, Liverseed grass, Mossman river grass, Paradoxa grass, Summer grass, Volunteer cereals, Wild Oats	2 leaf to tillering	200	<p>Spot spray: Use 25mL to 50mL/100L of water. Use higher rate on late tillering mature grasses.</p> <p>Annual Grasses: Where treated in association with perennial grasses, these annual grasses will be controlled</p>
Forestry: <i>Pinus radiata</i> , <i>Eucalyptus</i> spp.		Annual grasses as above	Vegetative to tillering	125 - 250	Forestry: For annual grasses apply lowest rate to newly emerged grasses, increasing the rate as they develop.
Forestry: <i>Pinus pinaster</i>		Barley grass, Brome grass, rope Twitch, barnyard grass, <i>Erodium</i> spp., Volunteer cereals	Vegetative to tillering	100 - 250	Pyrethrum (Tasmania only) For <i>Erodium</i> spp apply 75-100 mL/ha if the main weed is <i>E. botrys</i> . Use 50-75 mL/ha if either <i>E. cicutarium</i> or <i>E. moschatum</i> are the main weeds.
Pyrethrum					

Table 5. Sinon Haloxyfop 520 EC Herbicide and Select Herbicide tank mixes – Canola, Chickpeas, Faba beans, Field peas, Lupins, Lentils

Weeds Controlled	Weed Growth Stage	Rate (mL/ha)		Critical Comments
		Sinon Haloxyfop	Select Herbicide	
FOP/DIM susceptible Annual ryegrass + Volunteer barley, Volunteer wheat, Brome grass, Wild Oats, Barley grass, Phalaris	2 to 4 leaf	25	150	<p>¹ See GENERAL INSTRUCTIONS, Spraying oils/wetters section.</p> <p>Use Uptake Spraying Oil at 500mL/100L or Hasten at 1L/100L.</p>
	Early tillering	38	150	
FOP resistant Annual ryegrass + Volunteer barley, Volunteer wheat, Brome grass, Wild Oats, Barley grass, Phalaris	2 to 4 leaf	25	200	<p>Apply at the same crop growth stages as those in Table 1b Winter Crops.</p> <p>Lentils: Apply up to 7 node-early branching crop growth stage.</p> <p>Lupins: Not for Qld.</p>
	Early tillering	38	250	

NOT TO BE USED FOR ANY PURPOSE OR IN ANY MANNER CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION.

GENERAL INSTRUCTIONS

MIXING

Add water to the spray tank to 10cm above the level of agitation and ensure the agitation device is working vigorously (There must be a minimum of 100L of water in the tank before any pesticide is added).

If tank mixing, firstly add any soluble liquid formulations (e.g. Clopyralid (300 g/L) Herbicide) and allow agitation for approximately 1 minute

Then add Sinon Haloxyfop 520 EC Herbicide at the pot where the agitation is the strongest (do not add Sinon Haloxyfop 520 EC Herbicide through a strainer or sieve). Allow further agitation for 1 minute.

- Half fill spray tank.
- If using wettable powder or water dispersible granules, or other emulsifiable concentration formulations (e.g. Lorsban 750 WG or Le-Mat), these should be added after the Sinon Haloxyfop 520 EC Herbicide to the half full spray tank to ensure vigorous agitation.
- Finally add Uptake Spraying Oil or approved alternate spraying oil/wetter (see section on spraying oils/wetters) and continue filling the tank to the required volume maintaining agitation at all times
- Only mix sufficient solution for immediate use. Sinon Haloxyfop 520 EC Herbicide and any other tank mixes should be applied immediately for best results.

Spraying Oils/Wetters

* **Spraying Oils:** It is essential to add an adjuvant to Sinon Haloxyfop 520 Herbicide. Best results will be achieved with Uptake Spraying Oil at 0.5L/100L of spray solution. Alternatively, other oils plus non-ionic wetter may be used. When other crop spraying oils are used, mix at 1.0L/100L and add a non-ionic wetter (surfactant) at 200mL/100L of spray solution. Use of an oil is not always recommended. See Critical Comments for specific situation recommendations.

† **Non-Ionic Wetters:** When Uptake or other oils are not used, a 100% concentrate non-ionic wetting agent such as BS-1000 at 200mL/100L must be used along with the higher rate of Sinon Haloxyfop 520 EC Herbicide as specified in the Directions for Use.

Where water volumes of less 50L/ha are used, DO NOT use less than 250mL/ha of Uptake or 500mL/ha for oils other than Uptake or less than 100mL of wetter.

CANOLA, LUCERNE, MEDIC AND CLOVER PASTURES AND SEED CROPS

When tank mixing Sinon Haloxyfop 520 EC Herbicide with Lontrel herbicides (canola only) or Broadstrike (lucerne, clover and medics), use Uptake Spraying Oil with lower rates of Sinon Haloxyfop 520 EC Herbicide or a wetting agent with the higher rates of Sinon Haloxyfop 520 EC Herbicide unless otherwise specified. When mixing Sinon Haloxyfop 520 EC Herbicide with other broadleaf herbicides on these crops, DO NOT use an oil use a wetter instead.

FIELD PEAS AND CANOLA

The oil recommended is Uptake Spraying Oil. Hasten is also recommended for use with tank-mixtures of Sinon Haloxyfop 520 EC Herbicide and Select Herbicide.

For canola, Sinon Haloxyfop 520 EC Herbicide + Clopyralid 750SG + Uptake Spraying Oil are compatible and selective to canola. This tank-mixture is also compatible with atrazine or simazine and selective to triazine tolerant canola.

NAVY BEANS, PEANUTS AND SOYBEANS

When mixing with Blazer or Basagran DO NOT add spraying oil to these mixtures. DO NOT use these tank-mixtures on cowpea.

COMPATIBILITY - Ground Use Only

Insecticides: dimethoate, endosulfan, chlorpyrifos 500EC Insecticide, Lorsban 750WG Insecticide, omethoate

Herbicides: atrazine, Basagran, Blazer, Broadstrike Herbicide, Clopyralid 300 Herbicide, Clopyralid 750SG, MCPA Ester (LVE) – (Do not exceed 700mL/ha of MCPA LVE), oryzalin, Clethodim 240 Herbicide, simazine, Sinoxypyrr 200 EC Herbicide

Fungicides: Sinozeb 750, Dithane Rainshield Fungicide

Trace elements: magnesium sulphate, zinc sulphate

Sinon Haloxyfop 520 EC Herbicide is not compatible with 2,4-D or MPA as sodium or amine salts.

Aerial Use

No product other than a recommended crop oil or wetter should be mixed with Sinon Haloxyfop 520 EC Herbicide when applied by air except for the addition of Lontrel Forestry Herbicide for use in forestry and Lontrel 750SG for use in canola only.

APPLICATION

Apply Sinon Haloxyfop 520 EC Herbicide in sufficient water to obtain good coverage. It should be applied by an accurately calibrated ground rig or aircraft delivering droplets with a VMD of 200-300 microns.

The following spray volumes are recommended;

Ground Application: 50-150 L/ha

Aerial application: 30 L/ha minimum

Use higher water volumes in orchards and in dense crops where the weeds may be shielded by the crop canopy.

CLEANING SPRAY EQUIPMENT

Before using Sinon Haloxyfop 520 Herbicide

If broadleaf herbicides, particularly sulfonylureas, have been used in the spray equipment at any time prior to the use of Sinon Haloxyfop 520 Herbicide. Particular care should be taken to follow the directions on the relevant broadleaf herbicide label for equipment cleaning, or damage to susceptible crops may occur.

After using Sinon Haloxyfop 520 Herbicide

Empty the tank and drain the whole system. Thoroughly wash inside the tank using a pressure hose, drain the tank and clean filters in the tank, pump line and nozzles.

To rinse: After cleaning the tank as above, quarter fill the tank with clean water and circulate through the pump, lines hoses and nozzles. Drain and repeat the rinsing procedure twice.

To decontaminate: Before spraying cereals, maize, sorghum or other sensitive crops, wash the tank and rinse the system as above. Then quarter fill the tank and add an alkali detergent (e.g. SURF, Cold Water SURF Concentrate, DynamoMatic Concentrate, OMO or Drive) at 500mL/100L of water or the powder equivalent at 500g/100L of water, and circulate throughout the system for at least fifteen minutes. Drain the whole system. Remove filters and nozzles and clean separately. Finally flush the system with clean water and allow to drain. Chlorine based cleaners are not recommended. Rinse water should be discharged onto a designated disposal area, or if this is unavailable, onto unused land away from desirable plants and water sources.