



Product Name: Titan TRIASULFURON 520 + BUTAFENACIL 200 WG HERBICIDE
APVMA Approval No: 88040/120121

Label Name:	Titan TRIASULFURON 520 + BUTAFENACIL 200 WG HERBICIDE
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Signal Headings:	READ SAFETY DIRECTIONS BEFORE OPENING OR USING
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Constituent Statements:	ACTIVE CONSTITUENTS: 200 g/kg BUTAFENACIL 520 g/kg TRIASULFURON
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Mode of Action:	GROUP B G HERBICIDE
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Statement of Claims:	For the knockdown, pre-emergent and residual control of various weeds prior to planting wheat as per the Directions for Use
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Net Contents:	1kg; 1.5kg; 2kg
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Restraints:	Pre-sowing application only Restraints DO NOT apply if wheat will be undersown with legumes DO NOT use if any other Group B (ALS Inhibitor) herbicide has been or is intended to be used during the current season Apply no more than 2 Group B herbicides in any 4 year period on the same paddock DO NOT tank mix with Glyphosate+ Butafenacil products DO NOT use if Glyphosate+ Butafenacil products have been used in the same season DO NOT apply by aerial spraying equipment DO NOT apply if heavy rainfall that is likely to cause runoff is forecast or irrigation is to take place within 48 hours of application
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Directions for Use:	This section contains file attachment.
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Other Limitations:	
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Withholding Periods:	<p>WITHHOLDING PERIODS</p> <p>Grazing: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 7 WEEKS AFTER APPLICATION Harvest: NOT REQUIRED WHEN USED AS DIRECTED</p>
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Trade Advice:	
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General Instructions:	<p>GENERAL INSTRUCTIONS</p> <p>TITAN TRIASULFURON 520 + BUTAFENACIL 200 WG HERBICIDE is a water dispersible granular herbicide for the knockdown and pre-plant, incorporated by sowing, control of Annual Ryegrass, Paradoxa Grass and certain broadleaf weeds in wheat. Crops other than wheat, barley, oats, triticale and cereal rye can be very sensitive to low soil concentrations of TITAN TRIASULFURON 520 + BUTAFENACIL 200 WG HERBICIDE, thus prior to using the product, careful consideration should be given to crop rotation plans.</p> <p>Mixing</p> <p>DO NOT mix, load or apply this product within 50 m of any well, sink hole, intermittent or perennial stream. TITAN TRIASULFURON 520 + BUTAFENACIL 200 WG HERBICIDE is a water dispersible granular herbicide which mixes readily with water and is applied as a spray. 1. Partly fill the spray tank with water 2. Start the agitation 3. Add the correct amount of product to the spray tank with the agitation system running 4. Continue agitation while topping up the tank with water and while spraying 5. Use the spray mix within 24 hours of preparation</p> <p>Mixing Order</p> <p>Some products may react with other products if they are not mixed in the correct order. The general mixing order of products should be: 1. Water conditioners or buffers 2. Water dispersable granules (WG) 3. Wettable powders (WP) 4. Flowable or suspension concentrates (SC) 5. Emulsifiable concentrates (EC) 6. Water based or soluble concentrates 7. Oils and wetters It is important to ensure that each individual component of the tank mix is fully dissolved and in solution before the next product is added to the tank mix, otherwise mixing problems may occur.</p> <p>Application</p> <p>Spray equipment should be carefully calibrated before use. Complete coverage of weed seedling is required for maximum knockdown effect. A spray volume of 50 to 100 L/ha is recommended.</p> <p>Cleaning Equipment After Application Thoroughly clean the sprayer using the following procedure when you have finished spraying highly active materials such as sulfonylurea and butafenacil products. 1. Start with a thoroughly cleaned sprayer before beginning the next job. Mix only as much spray solution as needed. Immediately after spraying, clean equipment thoroughly using this procedure. Wear appropriate protective clothing. Flush tank, hoses, boom and nozzles with clean water. 2. Prepare a cleaning solution of 300 mL of household chlorine bleach (containing 4% chlorine) per 100 L of water. Ensure bleach used is fresh as it can degrade significantly over time resulting in a reduction in cleaning ability. 3. When available, use a pressure washer to clean the inside of the spray tank with this solution. Take care to wash all parts of the tank, including the inside top surface and lid. 4. Completely fill the sprayer with the cleaning solution to ensure contact of the cleaning solution with all internal surfaces of the tank and plumbing. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. All visible deposits must be removed from the spraying system and in cases where there is the possibility of heavy build up of residues, the cleaning solution may need to be left in the tank overnight to ensure adequate decontamination of the tank. 5. Flush hoses, spray lines and nozzles for at least 1 minute with the cleaning solution. 6. Dispose of rinsate from steps 1 to 5 in an appropriate manner. 7. Repeat steps 2 to 5. 8. Remove nozzles, screens, and strainers and clean separately in the cleaning solution after completing the above procedures. Be careful with filters, as they can be a main source of contamination. 9. Rinse the complete spraying system with clean water. The above method is only effective if the cleaning solution comes</p>
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	<p>into contact with every surface or contact point that may contain even minute sulfonyleurea or butafenacil herbicide residues. In some boom sprayers this may not be physically possible and hence it may be advisable to use a different boom sprayer, that has not been used to spray sulfonyleurea or butafenacil herbicides, when spraying sensitive crops such as legumes and especially canola.</p> <p>Compatibility TITAN TRIASULFURON 520 + BUTAFENACIL 200 WG HERBICIDE is compatible with Spray.Seed, Touchdown and glyphosate. When using a tank mix of TITAN TRIASULFURON 520 + BUTAFENACIL 200 WG HERBICIDE and Spray.Seed, add TITAN TRIASULFURON 520 + BUTAFENACIL 200 WG HERBICIDE with constant agitation, to approximately half the total volume of water to be used. Ensure that the TITAN TRIASULFURON 520 + BUTAFENACIL 200 WG HERBICIDE is fully dispersed. Add the Spray.Seed, fill the spray tank to full volume with water and mix thoroughly. Apply tank mix immediately, under constant agitation.</p> <p>This section contains file attachment.</p>
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Resistance Warning:	<p>Herbicide Resistance Warning</p> <p>GROUP B G HERBICIDE</p> <p>TITAN TRIASULFURON 520 + BUTAFENACIL 200 WG HERBICIDE Herbicide is a member of the sulfonyleurea and pyrimidiniones groups of herbicides. The product has the inhibitors of Acetolactate synthase (ALS) and protoporphyrinogen oxidase modes of action. For weed resistance management, the product is a Group B and G herbicide. Some naturally occurring weed biotypes resistant to the product and other Group B and G 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 this product or other Group B and G herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Titan Ag accepts no liability for any losses that may result from the failure of this product to control resistant weeds. Advice as to strategies and alternative treatments that can be used should be obtained from your local supplier, consultant, local Department of Agriculture, Primary Industries Department or a Titan Ag representative.</p>
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Precautions:	<p>PRECAUTIONS</p> <p>Some crop yellowing or crop retardation may occur where stress factors such as water logging, drought, excessive soil acidity or alkalinity, nutrient or trace element deficiency, disease - Rhizoctonia, Take-All, cereal cyst nematodes or soil insects are present or occur following application. Special care should be taken with regard to the application of TITAN TRIASULFURON 520 + BUTAFENACIL 200 WG HERBICIDE to durum wheat varieties as these may be more sensitive where the above stresses are present. DO NOT apply this product within one day of sowing of durum wheat varieties. In these situations crop recovery will be rapid provided the stress factors do not continue exerting a negative effect on the crop's growth. Crop retardation may also occur in some instances where considerable late summer/early autumn weed growth occurs. Weeds such as Goosefoot, Chenopodium spp. can release herbicidally active compounds into the soil.</p>
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Protections:	<p>PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS</p> <p>DO NOT apply on or near shrubs, trees, lawns or crops other than wheat. DO NOT apply, drain or flush equipment on or near desirable trees or other plants, where their roots may extend or in situations where by movement of soil, or seepage, absorption of the herbicide may occur.</p> <p>DO NOT apply under weather conditions or from spraying equipment that may cause spray to drift over nearby susceptible plants or crops, cropping lands or pastures. DO NOT allow</p>
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	<p>spray to drift onto adjacent crops and non-target desirable plants. DO NOT allow spray to drift onto adjacent fallow land.</p> <p>PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT This product is very highly toxic to algae and aquatic plants. DO NOT apply this product within 50 m of natural or impounded lakes, dams or waterways. DO NOT apply under meteorological conditions or from spraying equipment which could be expected to cause drift of this product or spray mix onto adjacent areas, particularly wetlands, waterbodies or watercourses. DO NOT contaminate streams, rivers or waterways with the chemical or used containers.</p>
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Storage and Disposal:	<p>STORAGE AND DISPOSAL KEEP OUT OF REACH OF CHILDREN</p> <p>Store in the closed, original container in a dry, cool, well ventilated area out of direct sunlight. Triple rinse containers before disposal. Add rinsings to the spray tank. DO NOT dispose of undiluted chemicals on site. If recycling replace cap and return clean containers to recycler or designated collection point.</p> <p>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 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.</p>
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Safety Directions:	<p>SAFETY DIRECTIONS May irritate the eyes and skin. Avoid contact with eyes and skin. When opening container and preparing spray, wear elbow length chemical resistant gloves. Wash hands after use. After each day's use wash gloves.</p>
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First Aid Instructions:	<p>FIRST AID If poisoning occurs, contact a doctor or Poisons Information Centre. Phone 131 126.</p>
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First Aid Warnings:	
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Crop	Weeds Controlled	Rate/ha	Critical Comments
Wheat	<p>Knockdown control: Annual Ryegrass (<i>Lolium rigidum</i>), Capeweed (<i>Arctotheca calendula</i>), Clover (<i>Trifolium</i> spp.), Doublegee, Three Cornered Jack or Spiny Emex (<i>Emex australis</i>), Medic (<i>Medicago</i> spp.), Sowthistle (<i>Sonchus oleraceus</i>), Volunteer Faba Beans (<i>Vicia faba</i>) and Field Peas (<i>Pisum sativum</i>), Wild Oats (<i>Avena fatua</i>), Wild Radish (<i>Raphanus raphanistrum</i>)</p> <p>Residual control: Annual Ryegrass (<i>Lolium rigidum</i>), African Turnip Weed (<i>Sisymbrium thellungii</i>), Ball Mustard (<i>Neslia paniculata</i>), Black Bindweed or Climbing Buckwheat (<i>Fallopia convolvulus</i>), Burr Medic (<i>Medicago</i> spp.), Capeweed (<i>Arctotheca calendula</i>), Common Cotula (<i>Cotula australis</i>), Corn Gromwell, White Ironweed or Sheepweed (<i>Buglossoides arvensis</i>), suppression of Crassula (<i>Crassula sieberana</i>), Deadnettle (<i>Lamium amplexicaule</i>), Denseflower Fumitory (<i>Fumaria densiflora</i>), Hedge Mustard (<i>Sisymbrium officinale</i>), Lesser Swinecress (<i>Coronopus didymus</i>), London Rocket (<i>Sisymbrium irio</i>), Matricaria (<i>Matricaria matricarioides</i>), suppression of Mexican Poppy (<i>Argemone mexicana</i>), New Zealand Spinach (<i>Tetragonia tetragonioides</i>), Paradoxa Grass (Annual Phalaris) (<i>Phalaris paradoxa</i>), Paterson's Curse (<i>Echium plantagineum</i>), Prickly Lettuce (<i>Lactuca serriola</i>), Rough Poppy (<i>Papaver hybridum</i>), Shepherd's Purse (<i>Capsella bursa-pastoris</i>), suppression of Skeleton Weed (<i>Chondrilla juncea</i>), Slender Celery (<i>Apium leptophyllum</i>), Smallflower</p>	<p>50 g</p> <p>Add a recommended adjuvant at label rates</p>	<p>If weeds are present prior to application it is recommended to tank mix TITAN TRIASULFURON 520 + BUTAFENACIL 200 WG HERBICIDE with a compatible knockdown herbicide (eg Paraquat or Glyphosate) to ensure effective knockdown control. TITAN TRIASULFURON 520 + BUTAFENACIL 200 WG HERBICIDE provides knockdown control of some weeds (listed in bold) which have just emerged (up to 2 leaf stage). In conservation tillage situations, or where larger weeds (greater than 2 leaf stage) are present apply TITAN TRIASULFURON 520 + BUTAFENACIL 200 WG HERBICIDE as a tank mixture with the recommended rate of a knockdown herbicide. If the total green matter exceeds 30% groundcover apply a separate application of a knockdown herbicide prior to application of TITAN TRIASULFURON 520 + BUTAFENACIL 200 WG HERBICIDE. Always add an adjuvant such as Hasten* or a non-ionic wetter at recommended rates. On large weeds and in less than ideal conditions the use of Hasten in preference to a non-ionic wetter is recommended. For best results apply to moist soil prior to sowing and incorporate by the sowing operation. Application should not be made to ridged or excessively cloddy soil. For best results apply to moist soil when follow up rain is likely to occur within 7 to 10 days. TITAN TRIASULFURON 520 + BUTAFENACIL 200 WG HERBICIDE will provide good control of volunteer grain legumes, however a small proportion of plants may survive and require an overspray to eliminate the potential for grain contamination.</p> <p>For Skeleton Weed a significant degree of control will be achieved on soil types of a predominantly sandy clay loam mixture with a pH greater than 8. Best control is observed where Skeleton Weed germinates in the very early stages of the crop. Surviving plants will be stunted.</p> <p>For best results for Paradoxa Grass control apply to dry soil before the sowing rain.</p>

	<p>Fumitory (<i>Fumaria parviflora</i>), suppression of Soursob (<i>Oxalis pes-caprae</i>), Stagger Weed (<i>Stachys arvensis</i>), Stemless Thistle (<i>Onopordum acaulon</i>), Turnip Weed (<i>Rapistrum rugosum</i>), suppression of Variegated Thistle (<i>Silybum marianum</i>), Vetch (<i>Vicia spp.</i>), Volunteer Chickpeas (<i>Cicer arietinum</i>), Faba Beans (<i>Vicia faba</i>) and Field Peas (<i>Pisum sativum</i>), Wards Weed (<i>Vella annua</i>), Wild Turnip (<i>Brassica tournefortii</i>), Wireweed (<i>Polygonum aviculare</i>), suppression of Wild Radish (<i>Raphanus raphanistrum</i>), Yellow Burrweed (<i>Amsinckia</i>) (<i>Amsinckia spp.</i>)</p>		
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NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION

Crop Rotation Guidelines

Unless otherwise specified (see table below), wheat, barley, oats, triticale and cereal rye can be planted the following season without restriction. For other specified crops the TITAN TRIASULFURON 520 + BUTAFENACIL 200 WG HERBICIDE treated area may be replanted after the interval indicated in the table below. These recommendations are made on the assumption that TITAN TRIASULFURON 520 + BUTAFENACIL 200 WG HERBICIDE is applied to a wheat crop that reaches maturity in the season of application.

Soil pH (1:5 soil:water suspension method)	State	Replanting Interval	Minimum rainfall requirements between application and sowing the following crop	Crop
6.5 or less	Qld, NSW, Vic, SA, WA only	12 months	300mm	Field Peas, Linseed, Lucerne, Lupins, Medics Δ , Subterranean Clover Δ , Faba Beans, Chickpeas, Canola
		15 months	700 mm	Sorghum, Maize, Soybean, Cotton, Cowpea, Mung Bean
		18 months	900 mm	Sunflowers
6.6 to 7.5	Qld, NSW only	12 months	500mm	Chickpeas, Canola
		15 months	700 mm	Sorghum, Maize, Soybean, Cotton, Cowpea, Mung Bean
		18 months	900 mm	Sunflowers
	Vic, SA, WA only	22 months	500 mm	Field Peas, Linseed, Lucerne, Lupins, Medics Δ , Subterranean Clover Δ , Faba Beans, Chickpeas, Canola, Sorghum, Maize, Soybean, Cotton
7.6 to 8.5	Vic, SA only	12 months	250 mm	Barley, Oats, Cereal Rye for grain crops
			300 mm	Barley, Oats, Cereal Rye for hay crops
	Qld, NSW only	12 months	500 mm	Chickpeas, Canola
		18 months	700 mm	Sorghum, Maize, Soybean, Cotton, Cowpea, Mung Bean
	Vic, SA, WA only	24 months	700 mm	Field Peas, Linseed, Lucerne, Lupins, Medics Δ , Subterranean Clover Δ , Faba Beans, Chickpeas, Canola, Sorghum, Maize, Soybean, Cotton
8.6 and above	Vic, SA only	2 months	250 mm	Barley, Oats, Cereal Rye for grain crops
			300 mm	Barley, Oats, Cereal Rye for hay crops
	Qld, NSW, Vic, SA, WA only	24 months,	700 mm	Field peas, Linseed, Lucerne, Lupins, Medics Δ , Subterranean Clover Δ , Faba Beans, Chickpeas, Canola, Sorghum, Maize, Soybean, Cotton

Δ Includes natural regeneration of Subterranean Clover and Medics For all other crops a replanting interval of 24 months has to be observed