

POISON

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

TITAN

PROSULFOCARB 800 EC HERBICIDE

ACTIVE CONSTITUENT: 800g/L PROSULFOCARB
SOLVENT: 147 g/L LIQUID HYDROCARBON (AROMATIC 150)

GROUP **15** HERBICIDE



For the pre-emergent control and post-emergent suppression of Annual Ryegrass in Wheat and Barley, and other Grass and Broadleaf Weeds in Wheat and Barley as per the Directions For Use.

APVMA Approval No.: 84685/142715V

Pack Size: 5L-1000L



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EC	Formulation Type Emulsifiable Concentrate
IN A TRANSPORT EMERGENCY • DIAL 000 • POLICE OR FIRE BRIGADE	
 3082	
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains prosulfocarb and solvent naphtha petroleum, heavy aromatic) PG III Hazchem •3Z	

DIRECTIONS FOR USE

Restraints: DO NOT apply by aircraft

DO NOT apply to soils prone to waterlogging, sodic soils or soils affected by physical compaction.

DO NOT apply if heavy rains or storms that are likely to cause runoff are forecast within 2 days of application.

DO NOT irrigate treated fields to the point of run-off within 3 days of application.

DO NOT apply more than 3.0L/ha per single growing season.

DO NOT apply if another product containing prosulfocarb has been, or is intended to be, applied during the same growing season.

SPRAY DRIFT RESTRAINTS

Specific definitions for terms used in this section of the label can be found at 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 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 1 to 2 hours before sunset and persist until 1 to 2 hours after sunrise.

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

- Spray droplets not smaller than a COARSE spray droplet size category.
- Minimum distances between the application site and downwind sensitive areas (see "Mandatory Buffer Zones" section of the following table titled 'Buffer Zones for Boom Sprayers') are observed.

Buffer Zones for Boom Sprayers		
Application Rate	Mandatory Downwind Buffer Zones	
	Natural Aquatic Areas	Vegetation Areas
Up to maximum label rate	10 metres	5 metres

1. Pre-emergent applications			
CROP	WEEDS	RATE/ha	CRITICAL COMMENTS
Wheat, Barley	Suppression of Annual Ryegrass (<i>Lolium rigidum</i>), including Group 3 resistant populations	2.5L	Apply pre-emergent and incorporate mechanically by the sowing operation (IBS). Application should be made to a moist seedbed up to 7 days prior to sowing and sufficient rain to thoroughly wet the top 3 to 4cm of soil should occur within 10 days after spraying.
	Control of Annual Ryegrass (<i>Lolium rigidum</i>), including Group 3 resistant populations	3.0L	Avoid soil throw into adjacent seeding rows or sites where furrow walls may collapse. Refer to crop tolerance, incorporation and tillage requirements under GENERAL INSTRUCTIONS.
	Annual Ryegrass (<i>Lolium rigidum</i>), Crassula, Red and White Fumitory, Paradoxa Grass (Canary Grass), <i>Phalaris</i> spp., Sand Fescue, soil surface Wild Oats, Toad Rush, Wireweed (Hogweed) Suppression of Brome Grass, Deadnettle, Rough Poppy, Yellow Burr Weed	2.5L plus 1.5L TITAN Treflan Herbicide	Application with TITAN Treflan Herbicide has been shown to improve the Ryegrass control of TITAN Prosulfocarb 800 EC Herbicide where Trifluralin resistance is not dominant. This mixture is also recommended for control or suppression of additional weeds and/or where good soil moisture cannot be assured. Apply pre-emergence using the incorporated by sowing (IBS) operation. Observe the TITAN Treflan Herbicide label guidelines for minimum tillage knife/blade point systems. Application should be made to a moist seedbed up to 24 hours prior to sowing and sufficient rain to thoroughly wet the top 3 to 4cm of soil should occur within 10 days after spraying. Avoid soil throw into adjacent seeding rows or sites where furrow walls may collapse. Attention to sowing speed and soil throw is important to ensure crop safety. When applying TITAN Prosulfocarb 800 EC Herbicide with TITAN Treflan Herbicide, there is a risk of crop injury. Always refer to use recommendations on TITAN Treflan Herbicide label regarding soil type restrictions and incorporation timing. Refer to tank mixes, crop tolerance, incorporation and tillage requirements under GENERAL INSTRUCTIONS.
2. Post-emergent applications			
CROP	WEEDS	RATE/ha	CRITICAL COMMENTS
Wheat, Barley	Suppression of Annual Ryegrass (1 to 3 leaf growth stage)	3.0L	The use of TITAN Prosulfocarb 800 EC Herbicide is intended as part of an integrated Annual Ryegrass management strategy that includes varied means to reduce Ryegrass survival and seed-set, to sustain low seed bank numbers. An early post-emergent application of TITAN Prosulfocarb 800 EC Herbicide should be used in conjunction with an effective IBS herbicide to reduce Ryegrass plant numbers. Surviving plants not controlled by TITAN Prosulfocarb 800 EC Herbicide may be stunted and uncompetitive but may still set seed. Apply only to Annual Ryegrass growing where the soil moisture profile and growing conditions since planting has been good. A follow-up rainfall within 14 days of application is required to achieve a high level of weed suppression. DO NOT apply after growth stage Z25 (GS25). DO NOT apply to crops that are waterlogged or may be subject to waterlogging as unacceptable crop injury may result. DO NOT apply to Annual Ryegrass that has been stressed due to either a period of marginal moisture or waterlogging as the level of weed control may be reduced. DO NOT apply to crops under stress, such as herbicide damage, due to increased risk of further crop injury.

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

WITHHOLDING PERIODS

Harvest: NOT REQUIRED WHEN USED AS DIRECTED.

Grazing: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 10 WEEKS AFTER APPLICATION.



GENERAL INSTRUCTIONS

TITAN Prosulfocarb 800 EC Herbicide is a short residual, soil applied, pre-emergent herbicide that is absorbed by the roots and shoots (coleoptile) of germinating seedlings with inhibition of growth in the meristematic region. Foliar uptake is possible but of lower effect. Upstream translocation in the plant occurs but movement in the phloem is very unlikely.

Best activity can be expected from applications before or shortly after the germination of target weeds.

TITAN Prosulfocarb 800 EC Herbicide should be applied to a moist smooth seedbed free of soil clods and emerged weeds.

Efficacy may be reduced by improper incorporation, high levels of crop or trash residues, stones or foreign matter and in areas of extremely high weed seed density such as header rows.

For optimal efficacy and crop safety avoid shallow seeding and ensure accurate seed placement that avoids placement of seed in the herbicide band. Avoid water repellent soils, soils subject to waterlogging or where furrow walls are likely to collapse. Duration and effectiveness of weed control will depend on use rate, soil type and rainfall or irrigation after application.

Adequate rainfall should occur within 10 days of application, as this herbicide requires sufficient available soil moisture to ensure soil movement and uptake by emerging weeds.

Crop Tolerance

The selectivity of TITAN Prosulfocarb 800 EC Herbicide in Cereals is a combination of positional and physiological selectivity.

Positional selectivity must be maintained by sowing at adequate depth below the herbicide band. The physiological selectivity of TITAN Prosulfocarb 800 EC Herbicide is given by the ability of Cereals to metabolise the herbicide to inactive compounds more rapidly than susceptible weed species.

Environmental factors such as rainfall events following application and soil type will influence product movement into the seed zone. Crop damage may result where tank mixed with other herbicides, heavy rainfall follows sowing, in the event of crop stresses including frost or in sandy soils with high leaching potential. Risk of crop damage may be exacerbated where varieties with short coleoptile length are planted in conjunction with the use of some fungicide seed treatments.

INCORPORATION AND TILLAGE REQUIREMENTS

IBS with knife or blade points: Working speed should ensure adequate incorporation of product but avoid soil throw into the adjacent seeding row. Use of press wheels will minimise potential for herbicide to be dragged back into seeding rows.

Weed control may be reduced in seeding rows as a result of concentration of herbicide in crop inter-rows. A knife or blade point is defined as being <12mm in width, having no wings, inverted T or blade and is generally on a minimum 200mm row spacing.

Full disturbance or conventional cultivation, including trailing harrows/prickle chain: Care should be taken to ensure seed placement below the herbicide band as crop damage may result where seed is sown too shallow. Consult TITAN Treflan Herbicide label for tank mix rate selection. When applying standalone, TITAN Prosulfocarb 800 EC Herbicide must be incorporated into the soil using the IBS operation within 7 days of application. When used in a tank mix with trifluralin, apply within 24 hours of sowing and mechanically incorporated using the IBS operation.

MIXING

TITAN Prosulfocarb 800 EC Herbicide is an emulsifiable concentrate that mixes readily with water. Fill the spray tank to one quarter full. Add TITAN Prosulfocarb 800 EC Herbicide and continue adding water to make up to the final spray volume.

Agitate while mixing and spraying. When tank mixing, wettable powder or water dispersible granule formulations should be added to the tank first followed by suspension concentrates (flowables), water soluble salts then TITAN Prosulfocarb 800 EC Herbicide or other emulsifiable concentrate formulations. Maintain thorough agitation during mixing and application. Agitate tank mixes vigorously if allowed to stand.

Note: Tank mix spray solutions should NOT be left standing in the vat overnight.

COMPATIBILITY

As formulations of other manufacturer's products are beyond the control of TITAN AG Pty Ltd and water quality varies with location, all mixtures should be tested prior to mixing commercial quantities. For more information, please contact your local TITAN AG representative.

Always review label guidelines for the tank mix partner prior to applying with TITAN Prosulfocarb 800 EC Herbicide.

APPLICATION

Apply by ground rig only in a minimum of 50L water/ha. Water rate selection should be based on soil type and stubble load. Stubble loads above 40 to 50% ground coverage can reduce weed control below acceptable levels. Water volumes greater than 70L/ha are recommended in order to reduce the impact of stubble in direct drill or minimum tillage systems. Use a nozzle delivering spray quality in the medium to very coarse spray range.

DO NOT apply by air.

TANK MIXES

Tank mixtures of TITAN Prosulfocarb 800 EC Herbicide with TITAN Treflan Herbicide are recommended where Annual Ryegrass control is required and/or for control of additional weed species not controlled by a standalone application of TITAN Prosulfocarb 800 EC Herbicide.

Application of TITAN Prosulfocarb 800 EC Herbicide with TITAN Treflan Herbicide for Annual Ryegrass may not effectively control high densities of Group 3 resistant populations nor delay the development of herbicide resistance.

Tank mixing of herbicides is only effective in managing resistance where a lethal dose rate of each herbicide is applied.

RESISTANT WEEDS WARNING

TITAN Prosulfocarb 800 EC Herbicide is a member of the thiocarbamates group of herbicides. This product has the inhibitors of fat synthesis mode of action. For weed resistance management, this product is a Group 15 herbicide. Some naturally occurring weed biotypes resistant to this product and other Group 15 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 15 herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, TITAN AG Pty Ltd accepts no liability for any losses that may result from the failure of this product to control resistant weeds.

Resistance Management

Large numbers of healthy surviving weeds can be an indication that resistance is developing. Efforts should be made to prevent seed set of the surviving weeds. DO NOT make more than 1 application of a Group 15 herbicide with the inhibition of very long chain fatty acid synthesis mode of action to a crop in the same season. If the user suspects that the target weed population is resistant to herbicides with this mode of action, TITAN Prosulfocarb 800 EC Herbicide or other Group 15 herbicides should not be used.

Strategies to minimise the risk of herbicide resistance are available. The above recommendations should be incorporated into an Integrated Weed Management (IWM) Program that uses a diverse range of options to manage grass weeds and avoids over reliance on any 1 method of control. Consult your farm chemical supplier, consultant, local Department of Agriculture or Primary Industries, or local TITAN Ag representative for details.

PRECAUTIONS

Re-entry Period: DO NOT allow entry into treated areas until the spray has dried unless wearing cotton overalls (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

DO NOT 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 by seepage absorption of the herbicide may occur.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Very toxic to aquatic life. DO NOT contaminate streams, rivers or watercourses with the chemical 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.

Returnable containers: Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.



SAFETY DIRECTIONS

Will irritate the eyes and skin. Repeated exposure may cause allergic disorders. Sensitive workers should use protective clothing. Avoid contact with eyes and skin. When opening the container, preparing the product for use and using the product, wear:

- cotton overalls buttoned to the neck and wrist (or equivalent clothing)
- elbow-length chemical resistant gloves
- face shield or goggles.

In addition, when opening the container and mixing and loading, wear a disposable mist face mask covering mouth and nose. If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash gloves, face shield or goggles and contaminated clothing.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131126; New Zealand 0800 764 766.

SAFETY DATA SHEET

Additional information is listed in the safety data sheet (SDS). A safety data sheet for TITAN Prosulfocarb 800 EC Herbicide is available from TITAN AG Pty Ltd on request. Call Customer Service on (02) 9999 6655 or visit titanag.com.au

CONDITIONS OF SALE: TITAN AG Pty Ltd shall not be liable for any loss injury damage or death whether consequential or otherwise whatsoever or howsoever arising whether through negligence or otherwise in connection with the sale supply use or application of this product. The supply of this product is on the express condition that the purchaser does not rely on TITAN AG's skill or judgment in purchasing or using the same and every person dealing with this product does so at his own risk absolutely. No representative of TITAN AG Pty Ltd has any authority to add to or alter these conditions.

Additional statements required by Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia: Combustible liquid. Harmful if swallowed. May be fatal if swallowed and enters airways. May cause an allergic skin reaction. Causes serious eye damage. May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects. Precautionary Statements: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not breathe mist/vapours/spray. Use only a well-ventilated area. Wear protective gloves, protective clothing, eye protection and face protection. Wash all exposed external body areas thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Contaminated work clothing should not be allowed out of the workplace. IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician/first aider. Do NOT induce vomiting. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of fire: Use alcohol resistant foam or normal protein foam to extinguish. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. Collect spillage. IF SWALLOWED: Call a POISON CENTER/doctor/physician/first aider if you feel unwell. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Rinse mouth. Store locked up. Store in a well-ventilated place. Keep container tightly closed. Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

