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

TITAN
Carfentrazone 240EC
Herbicide

ACTIVE CONSTITUENT: 240g/L CARFENTRAZONE-ETHYL
SOLVENTS: 699g/L LIQUID HYDROCARBON
20g/L N-METHYL-2-PYRROLIDONE

For improvement in the control of marshmallow and certain other broadleaf weeds prior to establishment of crops, fallows or forest plantations, in commercial, industrial and public service areas, around agricultural buildings and yards, in treefruits, nuts, grapevines in tank mixture with knockdown herbicides; control of marshmallow and annual nettles in grass pastures and rough grass/turf areas; and control of volunteer cotton seedlings including Roundup Ready® cotton and desiccation of cotton regrowth as per the Directions For Use Table.

IMPORTANT: READ THOROUGHLY BEFORE OPENING OR USING THIS PRODUCT.

APVMA Approval No.: 70246/62812
Contents: 1-10L
## DIRECTIONS FOR USE

### Restraints

DO NOT apply by aerial application except for cotton desiccation.

### Time of Application

- **ALL STATES**
  - Apply as a tank mix with Glacier®, Roundup®, Attack or other glyphosate products; Spray.Seed®, Shirquat®, Nufarm® or other paraoquat products.
  - **RATE:** 25-75mL/ha plus recommended rates of knockdown herbicides
  - **CRITICAL COMMENTS:** Addition of TITAN Carfentrazone 240EC Herbicide to knockdown herbicides will increase the speed at which treated broadleafed weeds in general develop visible symptoms (compared to results achieved with knockdown herbicides applied alone) and may improve final control of broadleafed weeds including certain hard-to-kill weeds, marshmallow in particular. The use of higher rates and full soil disturbance in cropping situations may improve control of marshmallow in particular. Use the lower rates on younger plants or plants growing under good conditions and the higher rates on older plants or plants growing under less optimum conditions. The lower rate may only provide suppression of capeweed, wild radish, common storksbill and doubleb blue under poor growing conditions. Common storksbill should be no larger than 4 leaf at spraying, recently terminated and not under stress – older or stressed plants may not be adequately controlled. Application to hardened weeds or drought stressed weeds especially under summer conditions may cause only localised injury to weed foliage which may not enhance final weed control. Mallow growing and sprayed in the summer is especially prone to drought stress and may rather not show symptoms typical of TITAN Carfentrazone 240EC Herbicide or may regress following treatment although plants did not appear very stressed at application. Apply only as a tank mix with recommended rates of knockdown herbicides. Refer to the appropriate label for weed sizes and follow all label directions. Addition of Supercharge® at 0.5% may be beneficial when applying TITAN Carfentrazone 240EC Herbicide with a glyphosate herbicide. To ensure uptake of TITAN Carfentrazone 240EC Herbicide, DO NOT sow crops for at least 1 hour after application. Always refer to the appropriate companion product label in case a longer re-crop sowing period is required. When using TITAN Carfentrazone 240EC Herbicide as a spot spray, apply in sufficient water (minimum 500L/ha) to thoroughly wet all weed foliage to the point of run-off. Addition of standard rates of a non-ionic surfactant may improve weed control.

### Situation

- **Prior to sowing winter and summer broadacre and horticultural crops; starting a fallow**
  - Volunteer cotton seedlings, including Roundup Ready varieties
  - **STATE:** QLD, NSW, WA only
  - **RATE:** Apply to seedlings at 2-6 leaf stage
  - **Conventional cotton only:** 75-100mL/ha plus recommended rates of knockdown herbicides
  - **Spot spray:** 10mL/100L plus recommended label spot spray rates of knockdown herbicides
  - **CRITICAL COMMENTS:** Application to hardened weeds or drought stressed weeds especially under summer conditions may cause only localised injury to weed foliage which may not enhance final weed control. Mallow growing and sprayed in the summer is especially prone to drought stress and may rather not show symptoms typical of TITAN Carfentrazone 240EC Herbicide or may regress following treatment although plants did not appear very stressed at application. Apply only as a tank mix with recommended rates of knockdown herbicides. Refer to the appropriate label for weed sizes and follow all label directions. Addition of Supercharge® at 0.5% may be beneficial when applying TITAN Carfentrazone 240EC Herbicide with a glyphosate herbicide. To ensure uptake of TITAN Carfentrazone 240EC Herbicide, DO NOT sow crops for at least 1 hour after application. Always refer to the appropriate companion product label in case a longer re-crop sowing period is required. When using TITAN Carfentrazone 240EC Herbicide as a spot spray, apply in sufficient water (minimum 500L/ha) to thoroughly wet all weed foliage to the point of run-off. Addition of standard rates of a non-ionic surfactant may improve weed control.

- **Grass pastures; Rough grass/ turf areas**
  - Marshmallow (Malva parviflora), Annual (stinging) Nettles (Urtica urens)
  - **STATE:** ALL STATES
  - **RATE:** 25-75mL/ha plus Supercharge or Hasten 0.5%
  - **CRITICAL COMMENTS:** Use the lower rates on younger plants or plants growing under good conditions and the higher rates on older plants or plants growing under less optimum conditions. These rates may only provide suppression of Marshmallow.
**GENERAL INSTRUCTIONS**

**TITAN Carfentrazone 240EC Herbicide** is an emulsifiable concentrate formulation and is to be mixed with water and applied as per the labelled Directions for Use. TITAN Carfentrazone 240EC Herbicide is a post-emergence herbicide to be added to knockdown herbicides to improve the control of certain broadleaf weeds including marshmallow prior to the establishment of follows, winter and summer broadacre and horticultural crops, marshmallow control in grass pastures, in commercial, industrial and public service areas, around agricultural buildings, yards and other farm situations or in trees, nuts and grapes.

**COMPATIBILITY**

For most uses as per the Directions for Use, TITAN Carfentrazone 240EC Herbicide should always be tank mixed with formulations of knockdown herbicides including TITAN Glyphosate 450 Herbicide, TITAN Max Glyphosate 540K Salt Herbicide or other products based on glyphosate, TITAN EGS Herbicide, TITAN Parquat 250 Herbicide or other knockdown herbicides based on parquat, and TITAN Glufosinate 200 Herbicide. TITAN Carfentrazone 240EC Herbicide is also compatible with partner herbicides commonly used with knockdown herbicides including TITAN Atrazine 900 WG Herbicide, Boxer Gold, TITAN Triclopyr 600 Herbicide, TITAN Dicamba 500 Herbicide, TITAN Trisulfuron 750 WG Herbicide, Outlook, TITAN Pendimethalin 330 Herbicide, Sakura, TITAN Simazine 11001, 110015, 11002 or equivalent sizes from other manufacturers or Spraying Systems TwinJet® twin flat spray tips T600- 11002, T600-11003 or T600-11004 or equivalent sizes from other manufacturers.

**RESISTANT WEEDS WARNING**

TITAN Carfentrazone 240EC Herbicide is a member of the Aryl triazoline 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 TITAN Carfentrazone 240EC Herbicide is a Group G herbicide. Some naturally occurring weed biotypes resistant to TITAN Carfentrazone 240EC Herbicide and other Group 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 TITAN Carfentrazone 240EC Herbicide or other Group G 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 TITAN Carfentrazone 240EC Herbicide to control resistant weeds.

**APPLICATION**

**Ground sprayers**

Apply TITAN Carfentrazone 240EC Herbicide as a broadcast application using a conventional boom sprayer with either mechanical or by-pass agitation.

Use single orifice flat fan nozzles such as Spraying Systems TeeJet® 11001, 110015, 11002 or equivalent sizes from other manufacturers or Spraying Systems TwinJet® twin flat spray tips T600- 11002, T600-11003 or T600-11004 or equivalent sizes from other manufacturers.

**DO NOT** use 11003 or 11004 or bigger single orifice nozzles or T.111006 or bigger twin orifice nozzles with TITAN Carfentrazone 240EC Herbicide.

**DO NOT** use floodjet, low drift or air induction nozzles, boomless jets or misters or controlled droplet application equipment.

Spray equipment should be properly calibrated to ensure correct and uniform application. Use a spray volume of 50 to 150 litres per hectare (minimum 80L/ha for
CROP PLANT BACK & Rotation recommendations
TITAN Carfentrazone 240EC Herbicide does not provide residual activity, therefore no crop plant back or rotational restrictions apply. However, check the label of any product mixed with TITAN Carfentrazone 240EC Herbicide, to determine any plant back periods or restrictions on use.

RE-ENTRY
DO NOT allow entry into treated areas until the spray has dried, unless wearing protective clothing, which will protect the skin and eyes from any chemical residues

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS
DO NOT apply under weather conditions, or from spray equipment, which may cause spray drift onto sensitive crops. Use the lowest pressure and boom height which provides uniform coverage. The higher the volume if weed infestation is heavy and/or tall.

VOLUNTEER COTTON
Experience has shown that increasing spray volumes can improve weed control. Use the lowest pressure and boom height which provides uniform coverage. Use the higher volume if weed infestation is heavy and/or tall.

COTTON
When desiccation cotton regrowth, use sufficient water to obtain complete coverage of all leaves, i.e. at least 100 litres of water per hectare. Good coverage should be obtained with three or more nozzles per row depending upon crop height and canopy density.

KnapSack, Pneumatic, Handgun Sprayers
Apply TITAN Carfentrazone 240EC Herbicide at the recommended rate of 1mL per 10 litres (10mL per 100 litres) in conjunction with labelled handgun rates of a knockdown herbicide in sufficient water to adequately and uniformly wet the foliage of the weeds being sprayed. A spray volume of 500L to 1000L will usually be sufficient but higher volumes may be required for dense taller vegetation. The best application conditions are when soil is moist, weather fine and rain unlikely within one hour or as specified for the knockdown herbicide. Extremes in environmental conditions eg. temperature and moisture, soil conditions and/or cultural practices may affect the activity of TITAN Carfentrazone 240EC Herbicide.

Aerial Application (for Cotton Desiccation only)
Apply by fixed wing aircraft in a minimum of 30L/ha water and ensure thorough coverage. Do not exaggerate swath width.

Sprayer Clean Out
– After the Use of TITAN Carfentrazone 240EC Herbicide

Thoroughly clean all spray equipment using the following procedure when you have finished spraying highly active materials such as carfentrazone-ethyl. In addition to the following procedure, ensure proper equipment clean-out for any other products mixed with TITAN Carfentrazone 240EC Herbicide as specified on the other product labels.

Important: More complete cleaning can be achieved if the spray equipment is cleaned immediately following each use. Mix only as much herbicide spray solution as needed at a time.

DO NOT store the sprayer for any extended period of time, especially over night, with TITAN Carfentrazone 240EC Herbicide spray solution remaining in the tank, spray lines, spray boom, spray booms, spray nozzles or strainers.

Preparation of the Cleaning Solution: Prepare a spray equipment cleaning solution by mixing an alkaline detergent eg “OMO” or “SPREE” at a rate of 100g for every 100L of clean water used.

Upon completion of applying TITAN Carfentrazone 240EC Herbicide and before spraying sensitive crops including canola, pulses such as faba beans, lentils, other legumes and cotton:

1. Fill the spray tank with sufficient cleaning solution to allow the operation of the spray system for a minimum of 15 minutes to thoroughly flush hoses, spray boom and spray nozzles then fill the spray tank to capacity to ensure contact of the solution with all internal surfaces. Let the cleaning solution soak in tank, pump and spray lines overnight.

2. Before further use of the sprayer, operate the spray system for 15 minutes, then completely drain the sprayer system. Rinse the tank with clean water and flush through the hoses, spray boom, spray boom and spray nozzles.

3. If possible spray a pesticide requiring an oil adjuvant eg Achieve & Supercharge onto cereals as a further means of removing possible residues of TITAN Carfentrazone 240EC Herbicide before spraying sensitive crops.

4. Immediately prior to commencement of spraying a sensitive crop, purger the boom lines by operating the spray system onto a fence line or waste area for sufficient time, to remove any solution that has been residing in the spray lines. This is also recommended for subsequent tank loads or if the sprayer has been left standing for a period of time containing spray solution.

5. If storing equipment for more than 48 hours, preferred practice is to clean spray by mixing an alkaline detergent eg “OMO” or “SPREE” at a rate of 100g for every 100L of clean water used.

Important:

DO NOT apply sprayer cleaning solutions or rinseate to sensitive crops. Should small quantities of TITAN Carfentrazone 240EC Herbicide remain in inadequately cleaned mixing, loading and/or spray equipment, they may be released during subsequent applications potentially causing effects to sensitive crops and other vegetation.

The above method is only effective if the cleaning solution comes into contact with every surface or contact point that may contain even minute carfentrazone-ethyl residues.