

CAUTION

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

Smart

Carfentrazone 240 EC

HERBICIDE

ACTIVE CONSTITUENT: 240 g/L Carfentrazone-Ethyl
Solvents: 720 g/L Liquid Hydrocarbon
26 g/L N-Methyl-2-Pyrrolidone

GROUP **14** HERBICIDE

For improvement in the control of marshmallow and certain other broadleaf weeds prior to establishment of broadacre crops, fallows or forest plantations, in commercial, industrial and public service areas, and around agricultural buildings and yards, in treefruits, nuts, grapevines in tank mixture with knockdown herbicides; for the 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 re-growth as per the Directions For Use Table.



IMPORTANT:
READ THIS LEAFLET BEFORE USING THIS PRODUCT

Crop Smart
better crop protection

11/24



DIRECTIONS FOR USE
RESTRAINTS:
DO NOT apply by aerial application except for cotton desiccation.

Situation	Weeds Controlled	State	Time of Application	Rate
<p>Prior to sowing winter and summer broadacre crops and starting a fallow. To assist in weed control in Commercial, Industrial and Public Service areas, around Agricultural buildings and yards. In young or established Grapevines, Tree-fruits (including Pome fruit, Stone fruit and Citrus fruit), Tree Nuts and Assorted Tropical and Sub tropical fruits.</p>	<p>Australian Ceassula/Stoncrop <i>Crassula spp.</i> Capeweed <i>Arctotheca calendula</i> Chickweed <i>Stellaria media</i> Common storkbill (max 4 leaves) <i>Erodium cicularium</i> Doublegee/ Spiny emex/Three cornered jack <i>Emex australis</i> Marshmallow <i>Malca parvillora</i> Paterson's curse <i>Echium plantagineum</i> Sub clover <i>Trilolium subterraneum</i> Wild Radish <i>Raphanus raphanistrum</i></p> <p>Refer also to the product label for the knockdown herbicide used.</p> <p>If one of the above weeds is the dominant weed, and there is no specific rate for it in the knockdown herbicide's label, consult the label's generic annual-weed rate-range. Select from within this range to suit the weed-stage, weed-density conditions (etc) of your situation.</p>	All States	Apply as a tank mix with glyphosate products; paraquat products.	<p>25-75 mL/ha plus recommended label rates of knockdown herbicides</p> <p>Spot spray 10mL/100L plus recommended label spot spray rates of knockdown herbicides</p>
<p>Prior to sowing summer broadacre crops and starting a fallow</p>	<p>Volunteer cotton seedlings, including Roundup Ready Varieties</p>	NSW, Qld, WA only	Apply to seedlings at 2-6 leaf stage.	<p>Roundup Ready cotton only: 75-100mL/ha plus compatible spray adjuvant or 75-100mL/ha plus Glyphosate 450 plus compatible spray adjuvant</p> <p>Conventional cotton only: 50-75mL/ha plus recommended rates of knockdown herbicides</p>
<p>Grass pastures; Rough grass/turf areas</p>	<p>Marshmallow <i>Malva parviflora</i> Annual (stinging) nettles <i>Urtica urens</i></p>	All states	Apply to seedlings at 2-10 leaf stage	<p>25-75 mL/ha plus compatible spray adjuvant 25-75 mL/ha plus recommended rates of 2,4-D</p>
<p>Cotton</p>	<p>Desiccation of regrowth</p>	Qld, NSW & WA only	Apply to regrowth following defoliation	<p>80-100 mL/ha</p>

Critical Comment
<p>Addition of Smart Carfentazone 240 EC to knockdown herbicide will increase the speed at which treated broadleaved weeds in general develop visible symptoms (compared to results achieved with knockdown herbicides applied alone) and may improve final control of broadleaved 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.</p> <p>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.</p> <p>The lower rate may only provide suppression of capeweed, wild radish, common storksbill and doublegee under poor growing conditions. Common storksbill should be no larger than 4 leaf at spraying, recently germinated and not under stress – older or stressed plants may not be adequately controlled.</p> <p>Application to hardened weeds or drought stressed weeds especially under summer conditions may cause only localized injury to weed foliage which may not entrance final weed control. Mallow growing and sprayed in summer is especially prone to drought stress and may either not show symptoms typical of Smart Carfentazone 240 EC or may regrow following treatment although plants did not appear very stressed at application.</p> <p>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 compatible spray adjuvant may be beneficial when applying Smart Carfentazone 240 EC with a glyphosate herbicide.</p> <p>To ensure uptake of Smart Carfentazone 240 EC 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.</p> <p>When using Smart Carfentazone 240 EC as a spot spray, apply in sufficient water (minimum 500 L/ha) to thoroughly wet all weed foliage to the point of run-off. Addition of standard rates of non-ionic surfactant may improve weed control.</p>
<p>Apply Smart Carfentazone 240 EC in a minimum spray volume of 80L/ha to ensure effective coverage. Use of lower spray volumes may reduce weed control. Cotton should be growing well at application; application to plants growing under heat and moisture stress may reduce the level of control.</p> <p>To broaden the weed spectrum Smart Carfentazone 240 EC may be tank mixed with the recommended rate of knockdown herbicide (glyphosate or paraquat products).</p> <p>When using a tank mix with Glyphosate for control of Roundup Ready seedlings the higher range rate of Smart Carfentazone 240 EC is required as well as compatible spray adjuvant.</p> <p>When using a tank mix with Glyphosate for control of Conventional Cotton seedlings the addition of standard rates of a non- ionic surfactant or compatible spray adjuvant will maximize control.</p>
<p>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.</p> <p>To improve the control of marshmallow SMART CARFENTRAZONE 240EC should be tank mixed with one of the following: 500mL/ha of an 800g/L ethyl ester of 2,4-D 650mL/ha of a 600g/L LV ester of 2,4D 750mL/ha of a 625g/L amine of 2,4-D – activity of this mix will be improved with the addition of compatible spray adjuvant.</p>
<p>Use Smart Carfentazone 240 EC to desiccate regrowth which occurs following the defoliation program.</p> <p>Apply with crop oil concentrates or blended oil- surfactant adjuvants as this may result in a greater reduction of green shoot. Use the higher rate of Smart Carfentazone 240 EC when regrowth is vigorous or when there are more than 20 regrowth leaves of any size, per plant. Ensure that spray equipment is adjusted to provide thorough coverage of foliage to maximize product performance. Use a minimum of 100 L/ha for ground application and 30 L/ha for aerial application.</p>

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 FOR SMART CARFENTRAZONE 240EC HERBICIDE WHEN USED AS DIRECTED, HOWEVER, REFER ALSO TO THE WITHHOLDING PERIOD OF PRODUCT/S MIXED WITH SMART CARFENTRAZONE 240EC HERBICIDE.

GRAZING: DO NOT GRAZE TREATED AREAS OR CUT FOR STOCKFOOD FOR 14 DAYS AFTER APPLICATION

COTTON PROCESSING: DO NOT HARVEST FOR 1 DAY AFTER APPLICATION.

GRAZING/COTTON TRASH: DO NOT GRAZE TREATED AREAS OR FEED COTTON TRASH TO LIVESTOCK.

EXPORT SLAUGHTER INTERVAL (ESI): AN EXPORT SLAUGHTER INTERVAL IS NOT REQUIRED WHEN USED AS DIRECTED.

GENERAL INSTRUCTIONS

SMART CARFENTRAZONE 240 EC Herbicide is an emulsifiable concentrate formulation and is to be mixed with water and applied as per the labeled Directions for Use. **SMART CARFENTRAZONE 240 EC Herbicide** is a post-emergence herbicide to be added to knockdown herbicide to improve the control of certain broadleaf weeds including marshmallow prior to the establishment of fallows, winter and summer broadacre crops, marshmallow control in grass pastures, in commercial, industrial and public service areas, and around agricultural buildings, yards and other farm situations. **SMART CARFENTRAZONE 240 EC Herbicide** can be used alone with a suitable adjuvant for control of volunteer cotton seedlings including Roundup Ready cotton. It can also be used for desiccation of regrowth in cotton.

SMART CARFENTRAZONE 240 EC Herbicide is a fast acting herbicide and aids in control of weeds through a process of membrane disruption. The foliar uptake of **SMART CARFENTRAZONE 240 EC Herbicide** is rapid and plant desiccation can occur within 4 days of application. Application of **SMART CARFENTRAZONE 240 EC Herbicide** should target small actively growing weeds. Subsequent germination will not be controlled.

SYMPTOMS

SMART CARFENTRAZONE 240 EC Herbicide is rapidly absorbed through foliage of plants. Within a few hours following application, the foliage of susceptible weeds shows signs of desiccation, and in subsequent days, necrosis and death of the plant. Extremes in environmental conditions eg. temperature and moisture, soil conditions and cultural practices may affect the activity of **SMART CARFENTRAZONE 240 EC Herbicide**. Under warm moist conditions, herbicide symptoms may be accelerated. While under very dry conditions, the expression of herbicidal symptoms is delayed, and weeds hardened off by drought are less susceptible to **SMART CARFENTRAZONE 240 EC Herbicide**.

COMPATIBILITY

For most uses as per the Direction of Use **SMART CARFENTRAZONE 240 EC Herbicide** should always be tank mixed with formulations of knockdown herbicides including products based on glyphosate, paraquat and glufosinate. **SMART CARFENTRAZONE 240 EC Herbicide** is also compatible with partner herbicides commonly used with knockdown herbicides including atrazine 900 WG and atrazine 500SC, 2,4-D amine, 2,4-D ester, trisulfuron, pendimethalin, simazine 900 WG, simazine 500SC and trifluralin. This compatibility claim is restricted to a three-way mix of **SMART CARFENTRAZONE 240 EC Herbicide** with any one of the above partner herbicides plus a knockdown herbicide (provided the knockdown herbicide label includes a claim of compatibility with the partner herbicide). **SMART CARFENTRAZONE 240 EC Herbicide** is compatible with non-ionic surfactants (wetting agents) and with oil adjuvants including Supercharge® and Hasten®.

TIMING

Pre-crop, Volunteer cotton and Marshmallow in grass pastures

Application should be made to small, actively growing weeds less than 6 to 8 leaf in stage. As **SMART CARFENTRAZONE 240 EC Herbicide** is a contact herbicide, best control is achieved when weeds are exposed and are not shielded by other weeds and or stubble.

Cotton

If cotton re-growth occurs after the initial defoliation programme, apply **SMART CARFENTRAZONE 240 EC Herbicide** to desiccate re-growth prior to harvest.

MIXING

Add half the required volume of water to spray tank and start agitation. Add any partner SC or WG herbicide next if it should be added before an EC or knockdown herbicide. Add the measured amount of **SMART CARFENTRAZONE 240 EC Herbicide** next, followed by the knockdown herbicide (if required). Add balance of water to tank and add any adjuvant or additive if recommended for use with the knockdown herbicide or for use in grapevines or as suggested in Critical Comments. Maintain good agitation at all times until spraying is completed. DO NOT store spray mixture overnight.

APPLICATION

Ground sprayers

Pre-crop Volunteer cotton and Marshmallow in grass pastures

Apply **SMART CARFENTRAZONE 240 EC 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 System TeeJet 11001, 110015, 11002 or equivalent sizes from other manufacturers or Spraying Systems TwinJet twin flat spray tips, TJ60 – 11002, TJ60 – 11003 or TJ60 – 11004 or equivalent sizes from other manufacturers. Do not use 110-03 or bigger single orifice nozzles or TJ11006 or bigger twin orifice nozzles with **SMART CARFENTRAZONE 240 EC 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 80 L/ha for 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. 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 **SMART CARFENTRAZONE 240 EC Herbicide**. Under warm moist conditions herbicide symptoms may be accelerated. While under very dry conditions, the expression of herbicidal symptoms may be delayed, and weeds hardened off by drought are less susceptible to **SMART CARFENTRAZONE 240 EC Herbicide**.

Cotton

When desiccation cotton regrowth, use sufficient water to obtain complete coverage of all leaves, ie. 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 **SMART CARFENTRAZONE 240 EC Herbicide** at the recommended rate of 1mL per 10 litres (10mL per 100 litres) in conjunction with labeled 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.

Aerial Application (for Cotton Desiccation only)

Apply by fixed wing aircraft in a minimum of 30 L/ha water and ensure through coverage. Do not exaggerate swath width.

SPRAYER CLEAN OUT – AFTER USE OF SMART CARFENTRAZONE 240 EC 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 **SMART CARFENTRAZONE 240 EC 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 an extended period of time, especially overnight, with **SMART CARFENTRAZONE 240 EC Herbicide** spray solution remaining in the tank, spray lines, spray boom plumbing, 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 water used. Upon completion of applying **SMART CARFENTRAZONE 240 EC Herbicide** and before spraying sensitive crops including canola, pulses such as faba beans, lentils, other legumes and cotton:

1. Fill the spray tank with enough cleaning solution to allow the operation of the spray system for a minimum of 15 minutes 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 line overnight.
2. Before further use of the sprayer, operate the spray system for 15 minutes, the completely drain the sprayer system. Rinse the tank with clean water and flush through the hoses, spray boom, and spray nozzles.
3. If possible spray a pesticide requiring an oil adjuvant onto cereals as a further means of removing possible residues of **SMART CARFENTRAZONE 240 EC Herbicide** before spraying sensitive crops.
4. Immediately prior to commencement of spraying a sensitive crop, purge the boom line 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 equipment as outlined above allowing to soak overnight,

drain and flush with fresh water and leave fresh water in the spray tank, hoses, and spray booms until next use. This water must be drained from the spray boom and line and flushed out with clean water before beginning any application to a sensitive crop.

Properly dispose of all cleaning solution and rinsate safely in accordance with Federal, State, and local regulations and guidelines. Do not apply sprayer cleaning solution or rinsate to sensitive crops. Should small quantities of **SMART CARFENTRAZONE 240 EC 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.

CROP PLANT BACK & ROTATION RECOMMENDATIONS

SMART CARFENTRAZONE 240 EC Herbicide does not provide residual activity, therefore no crop plant back or rotational restrictions apply. However, check the label of any product mixed with **SMART CARFENTRAZONE 240 EC Herbicide**, to determine and plant back periods or restrictions on use.

RESISTANT WEEDS WARNING

GROUP	14	HERBICIDE
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SMART CARFENTRAZONE 240 EC 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 resistant management **SMART CARFENTRAZONE 240 EC Herbicide** is a Group 14 herbicide.

Some naturally occurring weed biotypes resistant to **SMART CARFENTRAZONE 240 EC Herbicide** and other Group 14 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 **SMART CARFENTRAZONE 240 EC Herbicide** or any other Group 14 herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Crop Smart Pty Ltd accepts no liability for any losses that may result from the failure of **SMART CARFENTRAZONE 240 EC Herbicide** to control resistant weeds.

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 nearby susceptible plants, adjacent crops or pastures, or onto wetlands, water bodies or watercourses.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Highly toxic to algae and aquatic plants. DO NOT contaminate streams, rivers or waterways with **SMART CARFENTRAZONE 240 EC Herbicide** or used container.

PRECAUTIONS

RE-ENTRY

Do not allow entry into treated areas until the spray has dried, unless wearing cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use.

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 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.

SAFETY DIRECTIONS

Will irritate the eyes and skin. Avoid contact with eyes and skin. When opening the container and preparing spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and face shield or goggles. When using the prepared spray wear cotton overalls buttoned to the neck and wrist and elbow-length PVC gloves. 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 days use, wash gloves and face shield or goggles and contaminated clothing.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. **Phone Australia 13 11 26**. If in eyes wash out immediately with water. If swallowed, do NOT induce vomiting.

SAFETY DATA SHEET

Additional information is listed on the Safety Data Sheet (SDS) for **SMART CARFENTRAZONE 240 EC Herbicide**

CONDITIONS OF SALE

The use of **SMART CARFENTRAZONE 240 EC Herbicide** being beyond the control of the manufacturer no warranty expressed or implied is given by Crop Smart Pty Ltd regarding its suitability, fitness or efficiency for any purpose for which it is used by the buyer, whether in accordance with the directions or not and Crop Smart Pty Ltd accepts with no responsibility for any consequence whatsoever resulting from the use of this product.

