

Product Name: Agro-Essence Carfentrazone 240 EC Herbicide
APVMA Approval No: 95135/144775



Label Name:	Agro-Essence Carfentrazone 240 EC Herbicide
-------------	---

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

Constituent Statements:	ACTIVE CONSTITUENT: 240 g/L CARFENTRAZONE - ETHYL SOLVENTS: 736 g/L LIQUID HYDROCARBON and 20 g/L N-METHYL-2-PYRROLIDONE
-------------------------	---

Mode of Action:	GROUP 14 HERBICIDE
-----------------	--------------------

Statement of Claims:	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; for the Control of Suckers in Raspberries, Blackberries, Currants, Gooseberries; and Control of Volunteer Cotton Seedlings Including Roundup Ready Cotton and Desiccation of Cotton Re-growth
----------------------	---

Net Contents:	1 L to 10 L
---------------	-------------

Restraints:	DO NOT apply by aerial application except for cotton desiccation. 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. Wherever possible, correctly use application equipment designed to reduce
-------------	--

	<p>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.</p> <p>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 one to two hours before sunset and persist until one to two hours after sunrise.</p>
--	---

Directions for Use:	This section contains file attachment.
---------------------	--

Other Limitations:	
--------------------	--

Withholding Periods:	<p>Harvest Rubes and Ribes spp.: NOT REQUIRED WHEN USED AS DIRECTED. Cotton Processing: DO NOT HARVEST FOR 1 DAY AFTER APPLICATION. All Other Crops: NOT REQUIRED FOR AGRO-ESSENCE CARFENTRAZONE 240 EC HERBICIDE WHEN USED AS DIRECTED, HOWEVER, REFER ALSO TO THE WITHHOLDING PERIOD OF PRODUCTS MIXED WITH AGRO-ESSENCE CARFENTRAZONE 240 EC HERBICIDE.</p> <p>Grazing Rubes and Ribes spp.: DO NOT GRAZE TREATED AREAS OR CUT FOR STOCK FOOD FOR 14 DAYS AFTER APPLICATION. Cotton Trash: DO NOT GRAZE TREATED AREAS OR FEED COTTON TRASH TO LIVESTOCK. All Other Crops: DO NOT GRAZE TREATED AREAS OR CUT FOR STOCKFOOD FOR 14 DAYS AFTER APPLICATION.</p>
----------------------	---

Trade Advice:	<p>EXPORT SLAUGHTER INTERVALS (ESI) An export slaughter interval is not required when used as directed.</p>
---------------	--

General Instructions:	<p>Agro-Essence Carfentrazone 240 EC Herbicide is an emulsifiable concentrate formulation and is to be mixed with water and applied as per the labelled Directions for Use. Agro-Essence 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. Agro-Essence 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.</p> <p>Agro-Essence 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 Agro-Essence Carfentrazone 240 EC Herbicide is rapid and plant desiccation can occur within 4 days of application. Application of Agro-Essence Carfentrazone 240 EC Herbicide should target small actively growing weeds. Subsequent germination will not be controlled.</p> <p>SYMPTOMS</p>
-----------------------	---

Agro-Essence 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 e.g. temperature and moisture, soil conditions and cultural practices may affect the activity of Agro-Essence 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 Agro-Essence Carfentrazone 240 EC Herbicide.

COMPATIBILITY

For most uses as per the Directions for Use, Agro-Essence Carfentrazone 240 EC Herbicide should always be tank mixed with formulations of the knockdown herbicides glyphosate, paraquat and/or glufosinate. Agro-Essence Carfentrazone 240 EC Herbicide is also compatible with partner herbicides commonly used with knockdown herbicides including Atrazine 900 WG and Atrazine 500 SC, 2,4-D amine, 2,4-D ester, Triasulfuron, pendimethalin, Simazine 900 WG, Simazine 500 SC, Trifluralin. This compatibility claim is restricted to a three-way mix of Agro-Essence 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). Agro-Essence 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 Agro-Essence 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 Agro-Essence 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 Agro-Essence 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

DO NOT apply by aerial except for cotton desiccation.

Ground sprayers

Pre-crop Volunteer Cotton and Marshmallow in grass pastures.

Apply Agro-Essence 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 Agro-Essence 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, e.g. temperature and moisture, soil conditions and/or cultural practices may

affect the activity of Agro-Essence 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 Agro-Essence Carfentrazone 240 EC Herbicide.

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 Agro-Essence Carfentrazone 240 EC Herbicide at the recommended rate of 1 mL per 10 litres (10 mL 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.

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 Agro-Essence 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 Agro-Essence 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 Agro-Essence 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 e.g. "OMO" or "SPREE" at a rate of 100g for every 100L water used.

Upon completion of applying Agro-Essence 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, then 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 Agro-Essence 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.

	<p>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 Agro-Essence 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.</p> <p>Crop Plant Back & Rotation Recommendations Agro-Essence 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 Agro-Essence Carfentrazone 240 EC Herbicide, to determine and plant back periods or restrictions on use.</p>
--	--

Resistance Warning:	<p>RESISTANT WEEDS WARNING GROUP 14 HERBICIDE Agro-Essence 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 Agro-Essence Carfentrazone 240 EC Herbicide is a Group 14 herbicide. Some naturally occurring weed biotypes resistant to Agro-Essence 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 Agro-Essence Carfentrazone 240 EC Herbicide or any other Group 14 herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Agro-Alliance (Australia) Pty Ltd accepts no liability for any losses that may result from the failure of Agro-Essence Carfentrazone 240 EC Herbicide to control resistant weeds.</p>
---------------------	--

Precautions:	<p>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.</p>
--------------	--

Protections:	<p>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.</p> <p>PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT Highly toxic to algae and aquatic plants. DO NOT contaminate streams, rivers or watercourses with Agro-Essence Carfentrazone 240 EC Herbicide or used container.</p>
--------------	--

Storage and Disposal:	<p>Store in the closed, original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight.</p> <p>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.</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>
-----------------------	--

	<p>This container can be recycled if it is clean, dry, free of visible residues and has the drumMUSTER logo visible. Triple-rinse container for disposal. Dispose of rinsate by adding it to the spray tank. DO NOT dispose of undiluted chemical on site. Wash outside of the container and the cap. Store cleaned container in a sheltered place with cap removed. It will then be acceptable for recycling at any drumMUSTER collection or similar container management program site. The cap should not be replaced, but may be taken separately.</p>
--	---

Safety Directions:	<p>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 chemical resistant gloves and face shield or goggles. When using the prepared spray wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and elbow-length chemical resistant 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 day's use, wash gloves, face shield or goggles and contaminated clothing.</p>
--------------------	--

First Aid Instructions:	<p>If poisoning occurs, contact a doctor or Poisons Information Centre, Phone Australia 13 11 26. If swallowed, DO NOT induce vomiting. If in eyes, wash out immediately with water.</p>
-------------------------	--

First Aid Warnings:	
---------------------	--

DIRECTIONS FOR USE

Situation	Weeds Controlled	State	Time of application	Rate	Critical Comments
<p>Prior to sowing winter and summer broadacre crops and starting a fallow.</p> <p>To assist in weed control in Commercial, Industrial and Public Service areas, around Agricultural buildings and yards.</p> <p>In young or established Grapevines, Treefruits (including Pome fruit, Stone fruit and Citrus fruit), Tree Nuts and Assorted Tropical and Sub tropical fruits.</p>	<p>Australian Crassula/Stonecrop <i>Crassula spp.</i>, Capeweed <i>Arctotheca calendula</i>, Chickweed <i>Stellaria media</i>, Common Storkbill (max.4 leaves) <i>Erodium cicutarium</i>, Doublegee/Spiny Emex/Three Cornered Jack <i>Emex australis</i>, Marshmallow <i>Malva parviflora</i>, Paterson's Curse <i>Echium plantagineum</i>, Sub Clover <i>Trifolium 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	<p>Apply as a tank mix with Glyphosate 360 SL, Glyphosate 450 SL or other glyphosate products.</p> <p>Paraquat 250 SL or other paraquat products.</p>	<p>25 - 75mL/ha plus recommended label rates of knock-down herbicides</p> <p>Spot spray 10mL/100Lwater plus recommended label spot spray rates of knock-down herbicides</p>	<p>Addition of Agro-Essence Carfentrazone 240 EC Herbicide to knockdown herbicide 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. 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 Storkbill and Doublegee under poor growing conditions. Common Storkbill should be no larger than 4 leaf at spraying, recently germinated 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 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 Agro-Essence Carfentrazone 240 EC Herbicide or may regrow 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 compatible spray adjuvant may be beneficial when applying Agro-Essence Carfentrazone 240 EC Herbicide with a glyphosate herbicide. To ensure uptake of Agro-Essence Carfentrazone 240 EC 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 Agro-Essence Carfentrazone 240 EC Herbicide 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 a non-ionic surfactant may improve weed control.</p>

Situation	Weeds Controlled	State	Time of application	Rate	Critical Comments
Prior to sowing summer broadacre crops and starting a fallow	Volunteer Cotton seedlings, including Roundup Ready varieties	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 SL plus compatible spray adjuvant</p> <p>Conventional cotton only: 50 - 75mL/ha plus recommended rates of knockdown herbicides</p>	<p>Apply Agro-Essence Carfentrazone 240 EC Herbicide 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 Agro-Essence Carfentrazone 240 EC Herbicide may be tank mixed with the recommended rate of knockdown herbicide (Glyphosate 450 SL or other glyphosate products, Paraquat 250 SL or other paraquat).</p> <p>When using a tank mix with glyphosate for control of Roundup Ready seedlings the higher range rate of Agro-Essence Carfentrazone 240 EC Herbicide 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>
Grass pastures: Rough grass/turf areas	Marshmallow <i>Malva parviflora</i> , Annual (stinging) Nettles <i>Urtica urens</i>	All states	Apply to seedlings at 2 - 10 leaf stage	<p>25 - 75mL/ha plus compatible spray adjuvant</p> <p>25-75 mL/ha plus recommended rates of 2,4-D</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 Agro-Essence Carfentrazone 240 EC Herbicide should be tank mixed with one of the following:</p> <ul style="list-style-type: none"> • 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.
Cotton	Desiccation of regrowth	Qld, NSW & WA only	Apply to regrowth following defoliation	80 – 100mL/ha	<p>Use Agro-Essence Carfentrazone 240 EC Herbicide to desiccate regrowth which occurs following the defoliation program. 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 Agro-Essence Carfentrazone 240 EC Herbicide 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>

Situation	Weeds Controlled	State	Time of application	Rate	Critical Comments
<i>Rubus spp</i> (including raspberries and blackberries) and <i>Ribes spp.</i> (including currants and gooseberries)	Control of unwanted suckers (cane burning)	All states	Apply to suckers less than 300 mm long, before any lignification occurs.	75 mL/100L	Ensure complete coverage of suckers and spray to point of run-off. A minimum spray volume of 50 L per kilometre of row (both sides sprayed) is recommended. Avoid spray drift onto desirable green stems, foliage, fruit or flowers. Use hooded or shielded sprayers when applying treatment in close proximity to seedlings or newly transplanted bushes, or when planting distance between bushes and distances between rows are minimal. WARNING: this product is highly toxic to foliage and green stems of broadleaf plants, and incidental spray drift onto desirable green stems, foliage, fruit or flowers may result in necrosis.

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