



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7505T)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

EPA Reg. Number:

7969-517

Date of Issuance:

9/29/26

NOTICE OF PESTICIDE:

☒ Registration
☐ Reregistration
(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

Encapsure™ Duo Herbicide

Name and Address of Registrant (include ZIP Code):

BASF Agricultural Solutions US LLC
2 TW Alexander Drive
Research Triangle Park, NC 27713

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

Continues page 2

Signature of Approving Official:

Nathan Mellor, Branch Chief
Fungicide & Herbicide Branch, Registration Division (7505T)

Date:

9/29/26

2. Make the following label changes before you release the product for shipment:
 - Revise the EPA Registration Number to read, "EPA Reg. No. 7969-517."
3. Submit one copy of the final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

The record for this product currently contains the following CSF(s):

- Basic CSF dated 10/22/2025

If you have any questions, please contact Celeste Bollini at bollini.celeste@epa.gov.

Enclosure



We create chemistry

Saflufenacil	Group	14	Herbicide
Pyroxasulfone	Group	15	Herbicide

ACCEPTED

09/29/2026

Under the Federal Insecticide, Fungicide
and Rodenticide Act as amended, for the
pesticide registered under
EPA Reg. No. 7969-517

Note to PM/Reviewer: [Alternate or Optional text in brackets.]

Encapsure™ Duo

Herbicide

**For residual preemergence weed control in ornamental nurseries,
established container and field grown tree nurseries, and for
landscape and grounds maintenance**

Active Ingredients*:

saflufenacil: N'-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-(trifluoromethyl)-3,
6-dihydro-1(2H)-pyrimidinyl)benzoyl]-N-isopropyl-N-methylsulfamide. 6.82%

pyroxasulfone: 3-[[[5-(difluoromethoxy)-1-methyl-3-(trifluoromethyl)-
1H-pyrazol-4-yl]methyl]sulfonyl]-4,5-dihydro-5,5-dimethylisoxazole 10.91%

Other Ingredients: 82.27%

Total: 100.00%

* Contains 0.626 pound of saflufenacil formulated as a water-based capsule suspension mixed with
1.002 pounds of pyroxasulfone per gallon formulated as a water-based suspension concentrate

EPA Reg. No. 7969-XXX

EPA Est. No.

KEEP OUT OF REACH OF CHILDREN

CAUTION/PRECAUCIÓN

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en
detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See inside for complete **First Aid, Precautionary Statements, Directions For Use,
Conditions of Sale and Warranty**, and state-specific crop and/or use site restrictions.

**In case of an emergency endangering life or property involving this product,
call day or night 1-800-832-HELP (4357).**

[Alternate text: **Shake container well before use.**]

Net Contents:

BASF Agricultural Solutions US LLC
2 TW Alexander Drive
Research Triangle Park, NC 27713

FIRST AID	
If swallowed	• Call a poison control center or doctor immediately for treatment advice. • DO NOT induce vomiting unless told to by a poison control center or doctor. • Have a person sip a glass of water if able to swallow. • DO NOT give anything to an unconscious person.
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably by mouth to mouth, if possible. • Call a poison control center or doctor for further treatment advice.
If in eyes	• Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes; then continue rinsing. • Call a poison control center for treatment advice.
If on skin	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Agricultural Solutions US LLC (hereafter "BASF") for emergency medical treatment information: 1-800-832-HELP (4357).	

Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION. Harmful if swallowed or if inhaled. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves made of any waterproof material

Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **DO NOT** reuse them.

Engineering Controls

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.607(d-f)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. If pesticide gets on skin, wash immediately with soap and water.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards

DO NOT apply directly to water, areas where surface water is present, or intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment washwater or rinsate. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

Groundwater Advisory. Saflufenacil and pyroxasulfone have properties and characteristics associated with chemicals detected in groundwater. These chemicals may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

Surface Water Advisory. This product may impact surface water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow groundwater. This product is classified as having high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential loading of saflufenacil, pyroxasulfone, and pyroxasulfone's degradation product, [5-(difluoromethoxy)-1-methyl-3-(trifluoromethyl)-1H-pyrazol-4-yl]methanesulfonic acid (M1), from runoff water and sediment. Runoff of this product will be reduced by avoiding application when rainfall is forecast to occur within 48 hours.

Proper Handling Instructions. This product may not be mixed or loaded within 50 feet of wells (including abandoned wells and drainage wells), sinkholes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad must be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or washwater, and rainwater that may fall on the pad.

Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacity

DOES NOT apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

This product must be used in a manner which will prevent back-siphoning in wells, spills, or improper disposal of excess pesticide spray mixture.

Endangered Species Protection Requirements

This product may have effects on federally listed threatened or endangered plant species or their critical habitat. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the county or parish in which you are applying the pesticide. To determine whether your county or parish has a Bulletin, and to obtain that Bulletin, consult <http://www.epa.gov/espp/>, or call 1-844-447-3813 no more than 6 months before using this product. Applicators must use Bulletins that are in effect in the month in which the pesticide will be applied. New Bulletins will be available from the above sources 6 months before their effective dates.

Directions For Use

It is a violation of federal law to use this product in a manner inconsistent with its labeling. This label must be in the possession of the user at time of herbicide application.

Read the entire label. Use strictly in accordance with precautionary statements and directions and with applicable state and federal regulations.

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

Observe all restrictions and precautions in this label and the labels of products used in combination with

Encapsure™ Duo herbicide. The use of this product not consistent with this label can result in injury to crops, animals, or persons. Keep containers closed to avoid spills and contamination.

Encapsure Duo is not for sale, distribution, or use in Nassau and Suffolk counties in New York State, or in California.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of **12 hours**.

EXCEPTION: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, including plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves made of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber ≥ 14 mils, polyethylene, polyvinyl chloride ≥ 14 mils, or Viton ≥ 14 mils
- Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standards for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forest, nurseries, or greenhouses.

DO NOT enter treated areas without protective clothing until sprays have dried. Only protected applicator shall be in the treatment area during application.

STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

Pesticide Storage

DO NOT use or store near heat or open flame. Store in original container in a well ventilated area separately from fertilizer, feed, or foodstuffs and away from other pesticides. Avoid cross-contamination with other pesticides. Groundwater contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material.

Pesticide Disposal

Wastes resulting from this product must be disposed of on-site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mix, or rinsate is a violation of federal law. If these wastes cannot be disposed of according to label instructions, contact the state agency responsible for pesticide regulation or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Handling

Nonrefillable Container. DO NOT reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Pressure rinse as follows: Empty the remaining contents into application equipment or mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Triple rinse containers too large to shake

(capacity > 5 gallons) as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Repeat this procedure two more times.

(continued)

STORAGE AND DISPOSAL *(continued)*

Container Handling *(continued)*

Triple rinse containers small enough to shake (capacity ≤ 5 gallons) as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Refillable Container. Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

Triple rinse as follows: To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

When this container is empty, replace the cap and seal all openings that have been opened during use; return the container to the point of purchase or to a designated location. This container must only be refilled with a pesticide product. Prior to refilling, inspect carefully for damage including cracks, punctures, abrasions, worn out threads and closure devices. Check for leaks after refilling and before transport. **DO NOT** transport if this container is damaged or leaking. If the container is damaged, or leaking, or obsolete and not returned to the point of purchase or to a designated location, triple rinse emptied container and offer for recycling, if available, or dispose of container in compliance with state and local regulations.

In Case of Emergency

In case of large-scale spill of this product, call:

- CHEMTREC 1-800-424-9300
- BASF 1-800-832-HELP (4357)

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital) or hotline at 1-800-222-1222
- BASF 1-800-832-HELP (4357)

Steps to take if material is released or spilled:

- Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.
- Remove contaminated clothing and wash affected skin areas with soap and water.
- Wash clothing before reuse.
- Keep the spill out of all sewers and open bodies of water.

Product Information

Encapsure™ Duo herbicide provides rate-dependent residual preemergence control of annual broadleaf weeds, annual grass weeds, and sedges (refer to **Table 1** for list of weeds controlled). It may be used to maintain weed-free (i.e., bare ground) conditions in the various use sites described in this label, (refer to **Use Site Information** section for details) and summarized below:

- Ornamental nursery
- Nurseries for container and field grown trees (including Christmas trees) and other nursery stock
- Landscaped common areas
- Noncropland areas

The actual length of residual preemergence weed control depends on factors including application rate, soil surface conditions at time of application, weed pressure, and rainfall amounts after application. Adequate precipitation (at least 1/2 inch of rainfall or sprinkler irrigation before weed seedling emergence) is necessary to activate the residual preemergence activity of **Encapsure Duo**. Periods of dry weather following application of **Encapsure Duo** may reduce herbicidal effectiveness. When **Encapsure Duo** is not activated, a labeled postemergence herbicide may be needed to control weed escapes. **Encapsure Duo** does not control emerged weeds.

Table 1. Weeds Controlled or Suppressed by a Residual Preemergence Application of Encapsure™ Duo herbicide

Common Name	Scientific Name	C = Control S = Suppression ¹
Annual Broadleaf Weeds		
Alyssum, hoary	<i>Berteroa incana</i>	C
Amaranth, Palmer	<i>Amaranthus palmeri</i>	C
Amaranth, Powell	<i>Amaranthus powellii</i>	C
Amaranth, tumble	<i>Amaranthus albus</i>	C
Anoda, spurred	<i>Anoda cristata</i>	C
Beggarweed, Florida	<i>Desmodium tortuosum</i>	C
Bittercress, hairy	<i>Cardamine hirsuta</i>	C
Buckwheat, wild	<i>Polygonum convolvulus</i>	C
Burclover, California	<i>Medicago polymorpha</i>	C
Burcucumber	<i>Sicyos angulatus</i>	S
Burnweed, American	<i>Erechetities hieraciifolius</i>	C
Canola, volunteer (rapeseed), all types	<i>Brassica</i> spp.	C
Carpetweed	<i>Mollugo verticillata</i>	C
Chamberbitter	<i>Phyllanthus urinaria</i>	C
Chickweed, common	<i>Stellaria media</i>	C
Chickweed, mouseear	<i>Cerastium vulgatum</i>	C
Cocklebur, common	<i>Xanthium strumarium</i>	C
Copperleaf, hophornbeam	<i>Acalypha ostryifolia</i>	S
Copperleaf, Virginia	<i>Acalypha virginica</i>	C
Croton, tropic	<i>Croton glandulosus</i>	C
Crownbeard, golden	<i>Verbesina encelioides</i>	C
Dandelion	<i>Taraxacum officinale</i>	C
Dogfennel	<i>Eupatorium capillifolium</i>	C
Doveweed	<i>Murdannia nudiflora</i>	C
Eclipta	<i>Eclipta prostrata</i>	C
Evening-primrose, cutleaf	<i>Oenothera laciniata</i>	C
Filaree, redstem	<i>Erodium cicutarium</i>	S
Galinsoga, hairy	<i>Galinsoga quadriradiata</i>	C
Galinsoga, smallflower	<i>Galinsoga parviflora</i>	C
Geranium, Carolina	<i>Geranium carolinianum</i>	C
Groundcherry, cutleaf	<i>Physalis angulata</i>	C
Groundsel, common	<i>Senecio vulgaris</i>	S
Henbit	<i>Lamium amplexicaule</i>	S
Horseweed (maretail)	<i>Conyza canadensis</i>	C
Indigo, hairy	<i>Indigofera hirsuta</i>	C
Ivy, ground	<i>Glechoma hederacea</i>	C
Jimsonweed	<i>Datura stramonium</i>	C
Kochia	<i>Kochia scoparia</i>	C
Kyllinga, green	<i>Kyllinga brevifolia</i>	C
Ladysthumb	<i>Polygonum persicaria</i>	C
Lambsquarters, common	<i>Chenopodium album</i>	C
Lettuce, prickly	<i>Lactuca serriola</i>	C
Liverwort	<i>Marchantia polymorpha</i>	S
Mallow, common	<i>Malva neglecta</i>	C
Mallow, little	<i>Malva parviflora</i>	C

(continued)

Table 1. Weeds Controlled or Suppressed by a Residual Preemergence Application of Encapsure™ Duo herbicide (continued)

Common Name	Scientific Name	C = Control S = Suppression ¹
Annual Broadleaf Weeds (continued)		
Mallow, Venice	<i>Hibiscus trionum</i>	C
Marestail (horseweed)	<i>Conyza canadensis</i>	C
Mayweed*	<i>Anthemis cotula</i>	C
Morningglory, entireleaf	<i>Ipomoea hederacea</i> var. <i>integriscula</i>	C
Morningglory, ivyleaf	<i>Ipomoea hederacea</i>	C
Morningglory, pitted	<i>Ipomoea lacunosa</i>	C
Morningglory, red/scarlet	<i>Ipomoea coccinea</i>	C
Morningglory, smallflower	<i>Jacquemontia tamnifolia</i>	C
Morningglory, tall	<i>Ipomoea purpurea</i>	C
Moss	<i>Bryum</i> spp.	C
Mulberry weed	<i>Fatua villosa</i>	C
Mustard, tumble	<i>Sisymbrium altissimum</i>	C
Mustard, wild	<i>Sinapis arvensis</i>	C
Nightshade, black	<i>Solanum nigrum</i>	C
Nightshade, cutleaf	<i>Solanum triflorum</i>	C
Nightshade, Eastern black	<i>Solanum ptycanthum</i>	C
Nightshade, hairy	<i>Solanum sarrachoides</i>	C
Parsley, marsh	<i>Apium leptophyllum</i>	C
Parsley-Piert	<i>Alchemilla arvensis</i>	C
Pearlwort, birdseye	<i>Sagina procumbens</i>	C
Pennycress, field	<i>Thlaspi arvense</i>	C
Phyllanthus, longstalked	<i>Phyllanthus tenellus</i>	C
Pigweed, prostrate	<i>Amaranthus blitoides</i>	C
Pigweed, redroot	<i>Amaranthus retroflexus</i>	C
Pigweed, smooth	<i>Amaranthus hybridus</i>	C
Pigweed, tumble	<i>Amaranthus albus</i>	C
Pineapple-weed	<i>Matricaria discoidea</i>	S
Plantain, broadleaf	<i>Plantago major</i>	C
Plantain, Buckhorn	<i>Plantago lanceolata</i>	C
Poinsettia, wild	<i>Euphorbia heterophylla</i>	C
Puncturevine	<i>Tribulus terrestris</i>	S
Purslane, common	<i>Portulaca oleracea</i>	C
Pusley, Florida	<i>Richardia scabra</i>	C
Radish, wild	<i>Raphanus raphanistrum</i>	C
Ragweed, common	<i>Ambrosia artemisiifolia</i>	C
Ragweed, giant	<i>Ambrosia trifida</i>	C
Redmaids	<i>Calandrinia ciliata</i> var. <i>menziessii</i>	C
Redweed	<i>Melochia corchorifolia</i>	C
Rocket, yellow	<i>Barbarea vulgaris</i>	C
Senna, coffee	<i>Cassia occidentalis</i>	C
Sesbania, hemp	<i>Sesbania exaltata</i>	C
Shepherds-purse	<i>Capsella bursa-pastoris</i>	S
Sida, prickly	<i>Sida spinosa</i>	C
Smartweed, ladysthumb	<i>Polygonum persicaria</i>	S
Smartweed, Pennsylvania	<i>Polygonum pensylvanicum</i>	C

(continued)

Table 1. Weeds Controlled or Suppressed by a Residual Preemergence Application of Encapsure™ Duo herbicide (continued)

Common Name	Scientific Name	C = Control S = Suppression ¹
Annual Broadleaf Weeds (continued)		
Sowthistle, annual	<i>Sonchus arvensis</i>	C
Spiderwort, tropical	<i>Commelina benghalensis</i>	C
Spiny amaranth	<i>Amaranthus spinosus</i>	C
Spurge, petty	<i>Euphorbia peplus</i>	C
Spurge, prostrate	<i>Euphorbia prostrata</i>	C
Spurge, spotted	<i>Euphorbia maculata</i>	C
Starbur, bristly	<i>Acanthospermum hispidum</i>	C
Sunflower, common	<i>Helianthus annuus</i>	C
Texasweed	<i>Caperonia palustris</i>	C
Thistle, Russian	<i>Salsola kali</i>	C
Tree groundsel	<i>Baccharis halimifolia</i>	C
Velvetleaf	<i>Abutilon theophrasti</i>	C
Waterhemp (tall)	<i>Amaranthus tuberculatus</i>	C
Waterhemp, common	<i>Amaranthus rudis</i>	C
Willowherb, Northern	<i>Epilobium ciliatum</i>	C
Woodsorrel, yellow	<i>Oxalis stricta</i>	C
Wormwood, biennial	<i>Artemisia biennis</i>	S
Yellowcress, marsh	<i>Rorippa islandica</i>	C
Annual Grass Weeds		
Barley, hare	<i>Hordeum murinum</i> spp. <i>leporinum</i>	C
Barnyardgrass	<i>Echinochloa crus-galli</i>	C
Bluegrass, annual	<i>Poa annua</i>	C
Brome, downy	<i>Bromus tectorum</i>	C
Brome, Japanese	<i>Bromus japonicus</i>	S
Canarygrass	<i>Phalaris canariensis</i>	C
Cheat	<i>Bromus secalinus</i>	S
Crabgrass, large	<i>Digitaria sanguinalis</i>	C
Crabgrass, smooth	<i>Digitaria ischaemum</i>	C
Crabgrass, Southern	<i>Digitaria ciliaris</i>	C
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	C
Cupgrass, Southwestern	<i>Eriochloa gracilis</i>	C
Cupgrass, woolly	<i>Eriochloa villosa</i>	S
Foxtail, bristly	<i>Setaria verticillate</i>	C
Foxtail, giant	<i>Setaria faberi</i>	C
Foxtail, green	<i>Setaria viridis</i>	C
Foxtail, yellow	<i>Setaria pumila</i>	C
Goosegrass	<i>Eleusine indica</i>	C
Johnsongrass (seedling)	<i>Sorghum halepense</i>	S
Lovegrass, California	<i>Eragrostis diffusa</i>	C
Millet, Texas	<i>Urochloa texana</i>	S
Millet, wild proso	<i>Panicum miliaceum</i>	S
Oat, wild	<i>Avena fatua</i>	S
Panicum, fall	<i>Panicum dichotomiflorum</i>	C
Panicum, Texas	<i>Panicum texanum</i>	C
Rice, red	<i>Oryza sativa</i>	C

Table 1. Weeds Controlled or Suppressed by a Residual Preemergence Application of Encapsure™ Duo herbicide (continued)

Common Name	Scientific Name	C = Control S = Suppression ¹
Annual Grass Weeds (continued)		
Ryegrass, Italian	<i>Lolium multiflorum</i>	C
Ryegrass, rigid	<i>Lolium rigidum</i>	C
Sandbur	<i>Cenchrus</i> spp.	S
Shattercane	<i>Sorghum bicolor</i>	S
Signalgrass, broadleaf	<i>Brachiaria platyphylla</i>	S
Sedges		
Flatsedge, rice	<i>Cyperus iria</i>	C
Nutsedge, yellow	<i>Cyperus esculentus</i>	S

¹ **Encapsure Duo** must be used in tank mixes or sequential applications with other labeled herbicides that provide additional control of noted weeds.

Mode of Action

Encapsure Duo contains two active herbicide ingredients. Saflufenacil is a potent inhibitor of protoporphyrinogenoxidase belonging to herbicide mode-of-action

Group 14. Pyroxasulfone is a potent inhibitor of very long chain fatty acid (VLCFA) synthesis, belonging to herbicide mode-of-action **Group 15**. Saflufenacil is rapidly absorbed by roots and foliage. Following inhibition of the protoporphyrinogen-oxidase, plant death is the result of membrane damage. Under active growing conditions, susceptible emerging weed seedlings usually develop chlorotic and necrotic injury symptoms within hours and die within a few days. Susceptible germinating weed seeds usually die as they reach the soil surface or shortly after emergence. Pyroxasulfone is a root-and-shoot inhibitor that controls susceptible weed seedlings before or soon after they emerge from the soil.

Herbicide Resistance Management

For resistance management, **Encapsure Duo** contains both a **Group 14** herbicide and **Group 15** herbicide. Any weed population may contain plants naturally resistant to **Group 14** and/or **Group 15** herbicides. The resistant individuals may dominate the weed population if these herbicides are used repeatedly in the same areas. Appropriate resistant-management strategies should be followed.

To delay herbicide resistance, consider:

- Avoiding the consecutive use of herbicides that have a similar target-site-of-action on the same weed species.
- Using tank mixes or premixes with herbicides from different target-site-of-action groups as long as the involved products are all registered for the same use, have different sites of action, and are both effective at the tank mix or prepack rate on the weed(s) of concern.
- Basing herbicide use on a comprehensive IPM (Integrated Pest Management) program including cultural and mechanical methods.
- Monitoring treated weed populations for loss of efficacy, and control of escapes with effective alternative herbicides or mechanical methods.

- Identify weeds present in the area through scouting and field history and understand their biology. The weed-control program needs to consider all of the weeds present.
- Scout areas prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective.
- Scout areas after application to verify the treatment was effective.
- Suspected herbicide-resistant weeds may be identified by these indicators:
 1. Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
 2. A spreading patch of non-controlled plants of a particular weed species; or
 3. Surviving plants mixed with controlled individuals of the same species.
- If resistance is suspected, treat weed escapes with a herbicide with a different MOA and/or use non-chemical methods to remove escapes, as practicable, with the goal of preventing further seed production.
- Contact your **Encapsure Duo** supplier and/or a BASF representative to report weed escapes.
- Consult a BASF representative, local or state cooperative extension service, professional consultants or advisors, or other qualified authority to determine appropriate actions if you suspect resistant weeds.

Plant Tolerance and Phytotoxicity Notice

Encapsure™ Duo herbicide has been applied to a wide variety of common ornamental plants without observed plant injury. However, not all species, varieties, and cultivars have been tested for tolerance to **Encapsure Duo**, possible tank mix combinations with **Encapsure Duo**, pesticide treatments before or after those with **Encapsure Duo**, and combinations of **Encapsure Duo** with surfactants or adjuvants. Local conditions can also influence plant tolerance and may not match those under which BASF has conducted testing. Because many cultivars within a plant species vary in tolerance to chemical applications and growing conditions, the grower must recognize these differences and test the product accordingly. At a minimum, always test a small group of representative plants for tolerance to **Encapsure Duo** under local growing conditions and before large-scale use.

Grower (or applicator) assumes responsibility for testing ornamental suitability under local growing conditions by treating a small number of plants at the specified rate. **At a minimum, this should include evaluating treated plants for 1 to 2 months** following treatment for possible injury or other effects. To the extent consistent with applicable law, by applying **Encapsure Duo**, the user assumes responsibility for any plant damage or other liability associated with factors beyond the manufacturer's control, such as weather, presence of other materials, and manner or use of application inconsistent with this labeling.

Application Instructions

Application Timing

Apply **Encapsure Duo** anytime of the year and (preferably) to a weed-free, clean soil or ground surface and before target weed germination.

Apply **Encapsure Duo** either in a single application [using maximum label use rate] or sequential applications [using lowest labeled use rate].

Encapsure Duo may be applied alone, in tank mix, or sequentially with other herbicides to achieve the desired level of residual preemergence weed control. If emerged weeds are present at the time of application, use additional weed control methods, for example a tank mix with an appropriate postemergence herbicide(s) or mechanical means, to control emerged weeds.

Application Rate

Apply **Encapsure Duo** at 13.5 to 27 fl ozs/A as a broadcast spray, banded spray, or spot treatment.

Use **Table 2** to determine the corresponding amounts of active ingredients (saflufenacil, pyroxasulfone) from **Encapsure Duo** product use rates.

Table 2. Use Rate Equivalency

Amount of Encapsure Duo (fl ozs/A)	Amount of Saflufenacil (lb ai/A)	Amount of Pyroxasulfone (lb ai/A)
13.5	0.066	0.106
27.0	0.132	0.211

Use Restrictions

- **DO NOT** apply more than 27 fl ozs/A of **Encapsure Duo** (0.132 lb ai/A of saflufenacil, 0.211 lb ai/A pyroxasulfone) in a single application.
- **DO NOT** apply more than a cumulative maximum amount of 27 fl ozs/A of **Encapsure Duo** (0.132 lb ai/A of saflufenacil, 0.211 lb ai/A pyroxasulfone) per year from sequential applications.
- Maximum number of application per year - 2
- Minimum Re-treatment Interval for all applications - 14 days
- **DO NOT** contaminate water used for irrigation or domestic purposes.
- **DO NOT** apply **Encapsure Duo** through any type of irrigation system (e.g. chemigation).

Application Methods and Equipment

Encapsure Duo may only be applied by ground including ground sprayers, hand-held boom sprayers, or backpack sprayers using low-pressure hand booms.

Thorough spray coverage is required for optimum weed control and can be improved with nozzle and spray volume selection. Use and configure application equipment to provide an adequate spray volume, an accurate and uniform distribution of spray droplets over the treated area, and to avoid spray drift to nontarget areas. Adjust equipment to maintain continuous agitation during spraying with good mechanical or bypass agitation. Avoid overlaps that increase rates above the use rates specified in this label.

Encapsure Duo may only be applied using water as the spray carrier. Additionally, **Encapsure Duo** may be impregnated on and applied with dry bulk fertilizer.

Ground Spray Carrier Volume. Use 3 or more gallons of water per treated acre.

Backpack Spray Application

Apply 0.40 fl oz (12 mL) of **Encapsure Duo** with a backpack sprayer and/or low pressure hand boom calibrated to deliver 1 to 3 gallons spray (only water as spray carrier) uniformly over 1000 sq ft of ground area.

Mandatory Spray Drift Management

Ground Applications

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 ft above the ground.
- Applicators are required to select a nozzle and pressure that deliver a medium or coarser droplet size (ASABE S572). Flood-jet type nozzles are recommended for residual soil surface application. Nozzles that deliver coarse spray droplets may be used to reduce spray drift provided spray volume per acre (GPA) is increased to maintain coverage of target (i.e. soil surface).
- **DO NOT** apply when wind speeds exceed 10 mph at the application site.
- **DO NOT** apply during temperature inversions.

Wind-directional Buffer Zone Distances

Ground Applications

To avoid potential adverse effects to nontarget areas, applicators **must maintain a 75-foot buffer** between the application area and the **closest downwind edge** of nontarget terrestrial habitats (including grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas, shrub lands, and crop lands).

Spray Drift Advisories

The applicator is responsible for avoiding off-site spray drift. Be aware of nearby nontarget sites and environmental conditions.

Importance of Droplet Size

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size - Ground Boom Volume

Volume. Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.

Pressure. Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.

Spray Nozzle. Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Boom Height - Ground Boom

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom must remain level with the crop and have minimal bounce.

Shielded Sprayers

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

Temperature and Humidity

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

Temperature Inversion

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Wind

Drift potential generally increases with wind speed. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.**

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

Cleaning Spray Equipment

Clean application equipment thoroughly by using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions, followed by triple rinsing the equipment before and after applying this product.

Ground Application (dry bulk fertilizer)

Encapsure™ Duo herbicide may be impregnated or coated onto dry bulk granular fertilizer carriers for residual soil surface application. Impregnation or coating may be conducted by in-plant bulk or on-board systems. Perform the mixing operation in well-ventilated areas.

Addition of a drying agent may be necessary if the fertilizer and herbicide blend is too wet for uniform application because of high humidity, high urea concentration, or low fertilizer use rate. Slowly add the drying agent to the blend until a flowable mixture is obtained. Drying agents are not recommended for use with on-board impregnation systems.

Under some conditions, fertilizer impregnated with **Encapsure Duo** may clog air tubes or deflector plates on pneumatic application systems. Mineral oil may be added to **Encapsure Duo** before blending with fertilizer to reduce plugging. **DO NOT** use drying agents when mineral oil is used. To avoid separation of **Encapsure Duo** and mineral oil mixes in cold temperatures, keep mixture heated or agitated before blending with fertilizer. Mineral oil may be used at in-plant blending stations or on-board injection systems.

Generally, fertilizer application rates of at least 200 lbs to 700 lbs per acre of herbicide and fertilizer blend provide adequate distribution or coverage for **Encapsure Duo**

across the soil surface. Apply uniformly to the soil to prevent possible plant injury and offer satisfactory weed control. Impregnated fertilizer spread at 1/2 rate and overlapped for a full rate offer a more uniform distribution. Use shallow (less than 2 inches) incorporation for improved weed control. Deeper incorporation dilutes the herbicide layer near the soil surface and may result in unsatisfactory weed control.

To calculate the herbicide rate when using dry bulk fertilizer applications:

$$\frac{\text{fl ozs herbicide per acre}}{\text{pounds fertilizer per acre}} \times 2000 = \frac{\text{fl ozs herbicide}}{\text{per ton of fertilizer}}$$

Additives

Encapsure™ Duo herbicide is formulated to provide optimal residual preemergence weed control. No additive is needed when **Encapsure Duo** is applied alone.

However, several herbicide tank mixes with **Encapsure Duo** may require an adjuvant to improve postemergence burndown of emerged weeds. Follow directions for use and required additives needed on the label for the postemergence product.

Tank Mixing Information

It is the pesticide user's responsibility to ensure that all products in the mixtures are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Encapsure Duo may be tank mixed or applied sequentially with other herbicide products registered for use in any labeled use site found in this label. Refer to the tank mix product labels to confirm that the respective tank mix products are registered for use on the labeled use site.

Compatibility Test for Mix Components

Before mixing components, always perform a compatibility jar test.

1. For 20 gallons per acre spray volume, use 3.3 cups (800 mL) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source at the source temperature.
2. Add components in the sequence indicated in the **Mixing Order** section using 2 teaspoons for each pound or 1 teaspoon for each pint of labeled use rate per acre.
3. Always cap the jar and invert 10 cycles between component additions.
4. When the components have all been added to the jar, let the solution stand for 15 minutes.
5. Evaluate the solution for uniformity and stability. The spray solution must not have free oil on the surface, or fine particles that precipitate to the bottom, or thick

(clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is then compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, **DO NOT** mix the ingredients in the same tank.

Mixing Order

Maintain constant agitation throughout mixing and application until spraying is completed.

1. **Water** - Fill tank 1/2 to 3/4 full with clean water and start agitation.
2. **Inductor** - If an inductor is used, rinse it thoroughly after each component has been added.
3. **Products that are formulated as Wettable Powders, Dry Flowables, and Water Dispersible Granules** - Add to tank and allow to fully dissolve.
4. **Encapsure Duo** - Add at this point in tank mix preparation process.
5. **Water-dispersible liquid products** (suspension concentrates and suspo-emulsions)
6. **Water-soluble products** (including glufosinate or glyphosate products)
7. **Emulsifiable Concentrates**
8. **Remaining quantity of water**

If the spray mixture is allowed to settle for any period of time, thorough agitation is essential to resuspend spray mixture before spraying is resumed. Continue agitation while spraying.

Use Site Information

Read all preceding sections of this label as they apply to the following use sites.

Ornamentals and Nursery Maintenance

Apply **Encapsure Duo** in nurseries and landscaped areas to maintain bare ground conditions where ornamental plants are not currently being grown, but where area must be kept weed-free, including: gravel or stone pathways, roads and driveways, areas in and around buildings and other nursery structures, along fence rows, dry irrigation ditches and/or ditchbanks, ground matting, unused gravel pads within nursery blocks, or nursery pads or matting not currently in production but prior to the addition of containerized plants.

Encapsure Duo is not intended for application directly to ornamental plants in nurseries or in container-grown ornamentals.

[Wait at least 1 or 7 or 14 or 30 days after application of **Encapsure Duo** to place plants on treated gravel pads within nursery blocks.]

Established Container and Field Grown Tree Nurseries

Apply **Encapsure™ Duo herbicide** in nurseries containing established container and field grown conifers (including Christmas tree plantations), deciduous trees (including non-bearing or seedling juvenile fruit and nut trees), and field-grown woody nursery stock.

Encapsure Duo may be applied to juvenile fruit and nut trees grown in production nurseries. Juvenile trees are grown in production nurseries where immature and/or inedible fruits or nuts may appear on the tree, but are not intended for harvest or consumption.

Apply **Encapsure Duo** as a directed spray to the ground or soil surface around the base of established conifers, deciduous trees and woody ornamental plants. If possible, irrigate the treated area with 0.5 to 0.75 inch of water immediately following application to activate the residual preemergence activity of **Encapsure Duo**.

Direct contact or spray drift with emerged leaves and/or green shoots, thin or uncalloused bark or emerging buds may result in unacceptable and severe injury.

[Over the top applications may only be made once trees have hardened off, are in full dormancy and bud swell (break) has not occurred. Needle burn may occur on new flush if conifers are actively growing at time of application. However, **Encapsure Duo** typically will not affect subsequent growth.]

Tree stock must be established for at least 6 [12] months before application. Apply only to nonbearing tree stock.

DO NOT apply to conifers and deciduous trees within 1 year of seedling emergence.

DO NOT apply in vineyard (grape) nurseries.

Landscape and Grounds Maintenance

Apply **Encapsure Duo** in landscape, grounds, and non-cropland maintenance programs in need of residual weed control. **Encapsure Duo** can be used in and around established ornamental plantings and noncroplands areas as follows:

Landscaped common areas with established woody ornamentals in and around commercial, educational, industrial, institutional, municipal, recreational, residential, and retail developments (including apartment and condominium complexes, office complexes, strip malls and other shopping areas, multifamily dwellings, military and other institutions, parks, picnic grounds, schools, houses of worship, university or college campuses, parks, sports and athletic complexes, cemeteries, golf clubs/courses, parking lots), and similar sites.

Noncropland areas in need of vegetation control and/or management to maintain the site(s) including alleyways, access roads, airfields/airports, athletic fields, bareground areas, bike and exercise paths, ditchbanks,

ditches (dry), farmstead and ranch areas (barnyards, buildings and outbuildings, driveways, lanes, facilities, farmyards, foundations, machinery or implement yards, windbreaks, shelterbelts, uncropped areas, fallow areas, runoff areas), fences/fence lines/fence rows, hardscapes, livestock facilities, lumberyards, solar and wind farms, storage yards, natural areas including parks (national, state, county, city), office buildings, parking lots/areas/lanes, pathways, paved areas, recreational areas and open spaces including campgrounds, parks, restoration areas, RV camping/parking areas, hunting grounds, sports areas, off-road transportation paths/trails, natural areas, tennis courts, resorts, roadsides, rooftop plantings, schools, sidewalks, storage shed sites, trails and trailheads, hiking paths, vacant lots, and walkways.

Apply **Encapsure Duo** as a directed spray to the ground or soil surface around the base of well-established woody ornamental plants. If possible, irrigate the treated area with 0.5 to 0.75 inch of water immediately following application to activate the residual preemergence activity of **Encapsure Duo**.

Direct contact of actively growing foliage or spray drift to nearby foliage may result in severe plant injury or defoliation. However, **Encapsure Duo** typically will not affect subsequent growth of woody shrubs and trees will typically outgrow foliar injury. Over the top applications of **Encapsure Duo** may kill certain herbaceous ornamental plants including annual bedding plants. To maximize plant safety, direct applications to the soil, use spray shields to limit plant exposure near desirable plants, and leave a sufficient untreated buffer to ensure spray solution does not contact sensitive plant tissue.

Allow newly transplanted landscape ornamentals to actively grow for at least 60 days before applying **Encapsure Duo** around the plants.

Wait at least 60 days after **Encapsure Duo** application before planting landscape ornamentals into the treated area.

Use caution with **Encapsure Duo** application around desirable grape vine plantings, as plant injury could occur.

Conditions of Sale and Warranty

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF Agricultural Solutions US LLC ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

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BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

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