

Supplemental Labeling



Echelon[®] 4SC

HERBICIDE

EPA Reg. No. 279-3323

Active Ingredient:	By Wt.
Sulfentrazone	13.6 %
Prodiamine	27.3 %
Inert Ingredients:	59.1 %
	100.00%

Echelon 4 SC contains 4.0 pounds of active ingredient per gallon

DIRECTIONS FOR USE

IT IS AVIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING. ALL APPLICABLE DIRECTIONS, RESTRICTIONS AND PRECAUTIONS ON THE EPA REGISTERED LABEL ARE TO BE FOLLOWED.

This Supplemental labeling must be in the possession of the user at the time of pesticide application. Read the label affixed to the container for Echelon 4SC Herbicide before applying. Carefully follow all precautionary statements and application use directions. Use of Echelon 4SC Hebicide according to this supplemental labeling is subject to all use precautions and limitations imposed by the labeling affixed to the container for Echelon 4SC Herbicide.



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Agricultural Products Group
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Shake Well Before Using

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

Pesticide Storage: Store product in original container only, away from other pesticides, fertilizer, food or feed. Store in a cool, dry place and avoid excess heat.

Spill: In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. **Confine spills. Call FMC: (800) 331-3148.**

To confine spill: If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Pesticide Disposal: If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional office for guidance.

Container Disposal:

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: (For containers greater than 5 gallons) 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. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. (For containers 5 gallons or less) 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. Triple rinse (or equivalent). Then offer for recycling if available, or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Returnable/Refillable Containers - Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents 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.

GENERAL INFORMATION

Turf Use Instructions

Echelon 4SC Herbicide is a selective pre-emergence and post-emergence herbicide for control of crabgrass, annual grass and broadleaf weeds and sedges in turf sites including residential and institutional lawns, athletic fields, commercial sod farms, golf course fairways and roughs, roadsides, utility right-of-ways, railways and industrial areas.

Echelon 4SC Herbicide is a flowable formulation (suspension concentrate) containing 4 lbs. of active ingredient per gallon. The mode of action of Echelon 4SC herbicide involves uptake by both weed roots and shoots of existing weeds and prevention of growth by newly emerged weed seedlings.

MIXING AND APPLICATION INSTRUCTIONS

General Handling Instructions

This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, 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 contained 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 shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, 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 capacities do 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.

Product must be used in a manner which will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

Spray Tank Preparation

It is important that spray equipment is clean and free of existing pesticide deposits before using this product. Follow the spray tank clean out procedures specified on the label of product previously applied before adding

Echelon 4SC Herbicide to the tank.

Echelon 4SC Herbicide is a suspension concentrate intended for dilution with water. In certain applications, liquid fertilizer may replace water as diluent.

Mixing With Water

For best results, fill spray tank with one fourth of the volume of clean water needed for the area to be treated. Start the agitation system and add Echelon 4SC Herbicide to the tank. Make sure Echelon 4SC Herbicide is thoroughly mixed before application or before adding another product to the spray tank.

Mixing With Liquid Fertilizers

The addition of a sprayable nitrogen fertilizer with a nitrogen Percentage above 20% may increase herbicidal activity on certain weeds and decrease turf tolerance on desirable turfgrass cultivars. Utilize local recommendations for sources and rates of fertilizer and refer to mixing directions on the fertilizer labels (e.g. UAN or urea solutions). Determine the compatibility of this product with the desired fluid fertilizer by mixing small proportional quantities in advance (See the Tank Mixtures Compatibility section below).

Tank Mixtures Compatibility

Echelon 4SC Herbicide is believed to be compatible with most herbicides, fungicides, insecticides, growth regulators, liquid fertilizers and spray adjuvants commonly used in turf and ornamental plant management. However, when preparing a new tank mix conduct an appropriate compatibility test by mixing proportional amounts of all spray ingredients in a test vessel (jar) prior to tank mixing with other products. Shake the mixture vigorously and allow it to stand for five to ten minutes. Rapid precipitation of the ingredients and failure to re-suspend when shaken indicates that the mixture is incompatible and should not be applied. Provided the jar test indicates the mixture to be compatible, prepare the tank mixture as follows: Fill the tank one fourth full with water. With the agitator operating, add the recommended amounts of ingredients using the following order: dry granules first and liquid suspensions (flowable) second. As the agitation continues and the tank is filled with water add EC products third followed by the addition of water soluble products.

Read and observe mixing instructions of all tank mix partners. Also read each product's label for Directions for Use, Precautionary Statements and Restrictions and Limitations. The most restrictive labeling applies in all tank mixtures. No label dosage rate should be exceeded. Tank mixture recommendations are for use only in states where the companion products and application site are registered. In addition, certain states or geographical regions may have established dosage rate limitations. Consult your state Pesticide Control Agency for additional information regarding the maximum use rates.

Use Echelon 4SC Herbicide spray mixture immediately after mixing. Do not allow spray solutions to stand or dry in the tank.

Ground Equipment

Power sprayers: Uniform and accurate spray coverage requires proper calibration and operation of spray equipment. The use of marker dyes or foams can improve application accuracy. Boom sprayers equipped with appropriate flat fan nozzles, tips and screens are ideal for broadcast applications. Power sprayers fitted with spray wand/gun may also be used for broadcast application after careful calibration by the applicator. Power sprayers fitted with spray wand/gun are suitable for spot treatments. It is important to avoid over application of this product due to excessive overlapping or spot treatment.

Hand operated sprayers: Backpack and compression sprayers are appropriate for small turfgrass areas and spot treatments. Wands fitted with a flat fan nozzle tip should be held stationary at the proper height during application. A side-to-side or swinging arm motion may result in uneven coverage or excessive application.

Apply this product in a sufficient volume of carrier solution to provide a uniform spray distribution. Spray volumes of 20 – 175 gallons per acre (0.5 to 4.0 gal/1,000 ft²) with spray pressures adjusted to 20 – 40 psi are appropriate. Apply the higher spray volumes for dense weed populations.

Sprayer Equipment Clean-Out

After spraying Echelon 4SC Herbicide and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned using the following procedure:

1. Drain sprayer tank, hoses, and spray boom and thoroughly rinse the inside of the sprayer tank with clean water to remove sediment and residues. In addition, thoroughly flush sprayer hoses, boom, and nozzles with clean water.
2. Fill the tank 1/2 full with clean water, and add appropriate detergent or ammonia (follow manufacturer's directions for use). Fill the tank to capacity and operate the sprayer for 15 minutes to flush hoses, boom, and nozzles.
3. Drain the sprayer system. Rinse the tank with clean water and flush through the hoses, boom, and nozzles. Remove and clean spray tips and screens separately.
4. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State and local regulations and guidelines.

Do not drain or flush equipment on or near desirable trees or plants. Do not contaminate any body of water including irrigation water that may be used on other plants.

SPECIFIC USE INSTRUCTIONS IN TURFGRASS

Established Turf

This product may be used on seeded, sodded or sprigged turfgrasses that are well established. First application of this product can be made following the second mowing providing the grass has developed into a uniform stand with a good root system. Turf injury may result from application of this product on turf that is not well established or has been weakened by stresses such as unfavorable weather conditions, disease, chemical or mechanical influences.

When applied as directed under the conditions described, the following established grasses are tolerant to Echelon 4SC Herbicide at the recommended use rates in a range from 0.250 to 1.125 lb. ai/acre (8 to 36 fl. oz./acre or 0.184 to 0.8264 fl. oz./1,000 sq. ft.). Do not exceed 1.125 lb. ai/acre (36 fl. oz./acre) per calendar year.

Table 1. Tolerant grasses.

Grass Type	Recommended Use Rates Do not exceed maximum use rates per turf species in a single application		
	Lb. ai. per acre	Fluid ounces per 1000 ft ²	Fluid ounces per acre
Cool Season Grasses			
Bentgrass, creeping ¹ Fescue, fine ² (<i>Festuca rubra</i>) Ryegrass, perennial (<i>Lolium perenne</i>)	0.25-0.375 ³ lb. ai.	0.184-0.275 fl. oz.	8-12 fl. oz.
Bluegrass, Kentucky (<i>Poa pratensis</i>) Fescue, tall ² (<i>Festuca arundinacea</i>)	0.57-0.75 ³ lb. ai.	0.413-0.551 fl. oz.	18-24 fl. oz.
Sequential Application for Mixed Cool Season Turf/Cool Season Blends consisting of:			
Fescue, fine ² (<i>Festuca rubra</i>) Ryegrass, perennial (<i>Lolium perenne</i>) Bluegrass, Kentucky (<i>Poa pratensis</i>) Fescue, tall ² (<i>Festuca arundinacea</i>)	0.375 lbs ai Follow by 0.25 -0.375lbs ai/a 30-60 days later	0.275 fl. Oz. 0.184 - 0.275 fl oz 30- 60 days later	12 fl. oz. 12 fl oz 30 – 60 days later
Warm Season Grasses			
Bahiagrass (<i>Paspalum notatum</i>) Buffalograss (<i>Buchloe dactyloides</i>) Carpentergrass (<i>Axonopus affinis</i>) Centipedegrass (<i>Eremochloa ophiuroides</i>) Kikuyugrass (<i>Pennisetum clandestinum</i>) Seashore Paspalum (<i>Paspalum vaginatum</i>) Zoysiagrass (<i>Zoysia japonica</i>)	0.57-0.75 ³ lb. ai.	0.413-0.551 fl. oz.	18-24 fl. oz.
Bermudagrass (<i>Cynodon dactylon</i>) & hybrids	0.75-1.125 ³ lb. ai.	0.551-0.826 fl. oz.	24-36 fl. oz.

¹If bentgrass is mowed lower than 0.5 inches do not apply Echelon 4SC Herbicide.

²Use of this product on certain varieties of Chewing Fine Fescue or Tall Fescue cultivars may result in undesirable injury.

³Echelon 4SC Herbicide may be applied more than once per year if needed as long as total amount applied does not exceed the maximum application rate per turf type of 1.125 lbs. ai/acre (36 fl. oz./acre), whichever is lower.

- Use of this product on certain cultivars of Chewing Fescue, Fine Fescue or Tall Fescue cultivars may result in undesirable injury.
- Echelon 4SC application may cause temporary discoloration to exposed leaf surfaces on certain cultivars of zoysiagrass. Treated turfgrass will recover with new growth. Discolored leaf tissue will be removed with mowing. To reduce potential for discoloration, do not apply Echelon 4SC on turfgrass that is weakened by weather, mechanical, chemical, disease or other related stress. Maintain proper cultural practices such as adequate moisture and fertility levels to promote healthy turf growth.
- Echelon 4SC has demonstrated tolerance on both cool and warm season turfgrasses. However, not all varieties and or cultivars have been evaluated. Turfgrass managers desiring to treat newly released varieties should first apply Echelon 4SC to a small area prior to treatment of larger areas.

Table 1A. Applications for St Augustinegrass - Application of Echelon 4SC to St. Augustinegrass may cause temporary discoloration to exposed leaf surfaces of St. Augustinegrass. Treated turfgrass will recover with new growth and discolored leaf tissue will be removed with mowing.

Do not apply Echelon 4SC to St Augustinegrass if temporary discoloration cannot be accepted.

Warm Season Grass	Lb.ai per acre	Fluid ounces per 1000 ft ²	Fluid ounces per acre
St. Augustinegrass	0.57 lbs ai Follow by 0.57 lbs ai 45-60 days later	0.413 fl oz. Follow by 0.413 fl oz 45- 60 days later	18 fl. oz. Follow by 18 fl oz 45 – 60 days later

Postemergence Control of Annual, Biennial & Perennial Broadleaf Weeds, Grasses and sedges

Echelon 4SC Herbicide will control or suppress the weeds listed in Table 3 when applied shortly after weeds have emerged. Do not exceed the application rate specified for the turf species in Table 1. Do not apply adjuvants or surfactants with post applications of Echelon 4SC Herbicide unless tested on small areas prior to broadcast applications.

Weeds Controlled or Suppressed When Application Made Postemergence to Weeds

Table 3

Common Name	Scientific Name	Controlled	Suppressed
Bittercress	(<i>Cardamine spp.</i>)		X
Black medic	(<i>Medicago lupulina</i>)		X
Buttercups	(<i>Ranunculus spp.</i>)		X
Carolina geranium	(<i>Geranium carolinianum</i>)	1	
Carpetweed	(<i>Mollugo verticillata</i>)		X
Chickweed, common	(<i>Stellaria media</i>)	1	
Chickweed, mouseear	(<i>Cerastium vulgatum</i>)		X
Cinquefoil	(<i>Potentilla spp.</i>)		X
Clover	(<i>Trifolium spp.</i>)		X
Crabgrass (Large and Smooth)	(<i>Digitaria spp.</i>)	2	
Cudweed	(<i>Gnaphalium spp.</i>)		X
Dandelion	(<i>Taraxacum officinale</i>)		X
Dock, Curly	(<i>Rumex crispus</i>)		X
Evening primrose	(<i>Oenothera biennis</i>)		X
Fiddleneck	(<i>Amsinckia spp.</i>)		X
Filaree	(<i>Erodium spp.</i>)		X
Goldenrod	(<i>Solidago spp.</i>)	1	
Goosegrass	(<i>Eleusine indica</i>)	2	
Ground ivy	(<i>Glechoma hederacea</i>)	1	
Henbit	(<i>Lamium amplexicaule</i>)		X
Knotweed, prostrate	(<i>Polygonum aviculare</i>)		X
Kochia	(<i>Kochia scoparia</i>)	1	
Lambsquarters, common	(<i>Chenopodium album</i>)		X
Lawn burweed	(<i>Soliva pterosperma</i>)		X
Lespedeza, common	(<i>Lespedeza striata</i>)		X
Mallow, common	(<i>Malva neglecta</i>)		X
Nutsedge, Yellow	(<i>Cyperus esculentus</i>)	C	
Parsley piert	(<i>Alchemilla arvensis</i>)	1	
Pigweed, Redroot	(<i>Amaranthus retroflexus</i>)	1	
Pigweed, Tumble	(<i>Amaranthus albus</i>)	1	
Pineapple weed	(<i>Matricaria matricarioides</i>)		X
Plantain, buckhorn	(<i>Plantago lanceolata</i>)	1	
Puncture weed	(<i>Tribulus terrestris</i>)		X
Purslane, common	(<i>Portulaca oleracea</i>)		X
Pusley, Florida	(<i>Richardia scabra</i>)	1	
Redweed	(<i>Melochia corchorifolia</i>)		X
Rocket, London	(<i>Sisymbrium irio</i>)		X
Smartweed, Pennsylvania	(<i>Polygonum pennsylvanicum</i>)	1	
Sorrel, Red	(<i>Rumex acetosella</i>)		X
Speedwell	(<i>Veronica spp.</i>)	1	
Spurge, (annuals)	(<i>Euphorbia spp.</i>)	1	
Spurge, prostrate	(<i>Euphorbia humistrata</i>)	1	
Spurge, spotted	(<i>Euphorbia maculata</i>)	1	
Star of Bethlehem	(<i>Ornithogalum umbellatum</i>)	1	
Velvetleaf	(<i>Abutilon theophrasti</i>)		X
Violet, wild	(<i>Viola pratincola</i>)		X
Wild garlic	(<i>Allium vineale</i>)		X
Wild onion	(<i>Allium canadense</i>)		X
Woodsorrel, creeping	(<i>Oxalis corniculata</i>)		X
Woodsorrel, yellow	(<i>Oxalis stricta</i>)	1	

1. Weeds are suppressed at lower label rates (<24fl.oz/acre). For optimum control apply rates of at least 24fl.oz.per acre in a single application. Do not exceed the application rate specified for the turf species in Table 1.
2. Echelon controls crabgrass and goosegrass when applied postemergent to newly emerged weeds in the 1-4 leaf stage of development.

Application to Reseeded, Overseeded or Sprigged areas

Reseeding, overseeding or sprigging of treated areas within three to twelve (3-12) months after application of this product could inhibit the establishment of desirable grasses. [See table for exact intervals from application].

Best results are obtained for reseeding or overseeding when mechanical or power seeding equipment (slit seeders) are used to give good seed to soil contact and proper soil cultivation, irrigation and fertilization practices are followed.

Overseeding Intervals after Echelon 4SC Herbicide Applications Table 4

Total Amount of Echelon 4SC Applied Ounces Product/Acre	Interval (Months Before Overseeding)		
	North	Transition	South
8 - 12	3	3	3
18	3	3	3
24	4	4	4
36	6	5	5

Sod Production

It is recommended that sod be established for at least six (6) months before an application of Echelon 4SC Herbicide.

Do not apply this product within three (3) months of harvest.

Other Use Precautions

Do not apply to golf course putting greens or tees.

Do not use on turgrasses other than those listed on this label.

Do not graze or feed livestock forage cut from areas treated with Echelon 4SC Herbicide.

Do not apply directly to landscape ornamentals or ornamental beds.

Do not apply to areas where dichondra, colonial bentgrass, velvet bentgrass or annual bluegrass (*Poa annua*) are desirable species.

Do not apply to creeping bentgrass if mowing height is less than 0.5 inch.

Do not harvest treated sod before 90 days after application.

Do not apply to newly set sod until the sod has rooted and exposed edges have grown in.

Do not apply with adjuvants or surfactants.

Temporary turfgrass discoloration has been observed when Primo has been either tank-mixed or applied within 7 days of a Echelon 4SC application. It is recommended that Primo applications be made 7 days prior to, or after Echelon 4SC application to reduce risk of turfgrass discoloration.

CONDITIONS OF SALES AND LIMITATIONS OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. 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 manner of use or application, weather or crop conditions beyond the control of FMC or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold FMC and Seller harmless for any claims relating to such factors.

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, FMC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT. Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) seller or FMC, and to the extent consistent with applicable law, buyer assumes the risk of any such use.

To the extent consistent with applicable law, FMC or seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF FMC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF FMC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

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