

279-3320



2/19/2010

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

Callista O. Chukwunenye
FMC Corporation
1735 Market Street
Philadelphia, PA 19103

FEB 19 2010

Dear Dr. Chukwunenye:

SUBJECT: Label Amendment - Master Label
Echelon 0.57% Granular Herbicide on Fertilizer
EPA File Symbol 279-3320
Your Application Dated August 31, 2009

The label amendment referred to above, submitted in accordance with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable. A stamped copy is enclosed for your records. Please submit one (1) copy of your final printed labeling before you release the product for shipment. This amended labeling supersedes all previously accepted ones.

Sincerely yours,

A handwritten signature in black ink that reads "Kathryn V. Montague".

Kathryn V. Montague
Product Manager (23)
Herbicide Branch
Registration Division (7505P)

Enclosure

ECHELON®

0.57% Granular Herbicide on Fertilizer for consumers
For Selective Preemergence and Postemergence Control of Sedges,
Annual Grasses and Broadleaf weeds in Residential Lawns.

EPA Reg. No. 279-3320 EPA Est. 279-

Active Ingredient: By Wt.

Sulfentrazone: N-[2,4-dichloro-5-[4-(difluoro methyl-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl)phenyl]methanesulfonamide	0.19%
Prodiamine: [N3,N3-Di-n-propyl-2,4-dinitro-6-(trifluoromethyl)-m-phenylenediamine	0.38%
Other Ingredients	<u>99.43%</u>
	100.0%

Contains 0.0057 pounds of active ingredient per pound of product
U. S. Patent No. 4,818,275, Patents pending

Guaranteed Analysis XX-X-XX

Total Nitrogen (N)	XX.XX %
XX.XX% Urea Nitrogen	
Soluble Potash (K₂O)	XX.XX %
Sulfur (S) Total	XX.XX %
X.XX % Free Sulfur (S)	
X.XX % Combined Sulfur (S)	
Iron (Fe) Total	X.XX %
X.XX % Soluble Iron (Fe)	
Derived From: Poly Coated Sulfur Coated Urea, Sulfate Of Potash, Iron Sulfate.	
Chlorine (Cl) Max.	X.XX %

**ACCEPTED
with COMMENTS
In EPA Letter Dated:**

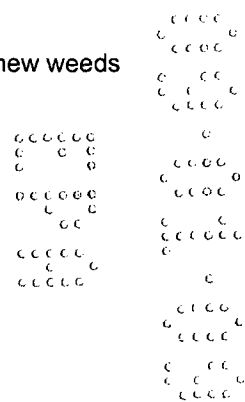
FEB 19 2010
Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.

279-3320

- The most effective crabgrass, foxtail, spurge and oxalis preventer you can buy.
- Halts crabgrass and other weeds before they appear
- Halts weeds already present
- Kills broad leaf weeds already in your lawn and prevents the growth on new weeds including broadleaf and grassy weeds and nutsedge

FMC Corporation
Agricultural Products Group
1735 Market Street
Philadelphia PA 19103

08-27-09 Draft



KEEP OUT OF REACH OF CHILDREN CAUTION

See back for additional precautionary information

It is a violation of Federal law to use this product in a manner inconsistent with its labeling

New Product Facts

- Echelon is a selective pre-emergence and post-emergence turf herbicide for control of sedges, annual grass and broadleaf weeds in residential lawns.
- Do not use on Dichondra or St. Augustine lawns
- In early spring apply when lawn is dry to kill weeds already in the lawn including Plantain, Oxalis, Dandelion, Violet, Wild onion, Garlic and Black medic and prevent germination of Crabgrass, Foxtail, spurge, Barnyard grass, fall panicum, goosegrass, nutsedge, oxalis, Chickweed, Purslane and Pigweed:
 - Before March 1 in southern California. For best results apply by mid February
 - Before mid March in northern California
 - Early Spring (up to the time dandelions are in puffball stage) in other states
 - For Goosegrass control repeat application in 8 weeks
- Rain, snow or freezing conditions will not effect the performance of the product.
- In the fall (August-October) apply after temperatures have cooled and the fall rains have begun to prevent the germination of *Poa annua*, Chickweed, in the fall and crabgrass and oxalis in the spring
- Don't use on newly seeded grassy lawns until after the second mowing. On newly sprigged areas wait 4 months before application
- Do not plant grass seed for four months after using this product.
- Do not apply more frequently than twice a year. Allow at least one month interval between applications
- Do not rake or aerify after application.
- Do not apply this product to flower beds
- Do not graze or feed livestock forage cut from areas treated with Echelon turf herbicide.

Spreading Tips- Apply header strips. Then apply product in longest direction of lawn..

Diagram of Spreading TIPS

Spreader Settings

For best results, use a Scotts spreader and mow the lawn before applying this product

Scotts Rotary Spreaders	
Scotts Speedy Green	4 Make each pass about 5 feet from previous pass to overlap spread width
Scotts Easy Green	26.5 Make each pass about 30 inches from previous pass to overlap spread width
Scotts Drop Spreaders	
Scotts AccuGreen	6 Make sure spreader wheel completely overlaps previous wheel mark
Scotts PrecisionGreen	7 Make sure spreader wheel completely overlaps previous wheel mark

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Additional Spreader Settings
EZ Dorp Republic (#530) 6.5
EZ Broadcast Republic (#540)...4
Scotts Broadcast Tractor Spreader...4

(Non-Scotts spreader settings are approximate and may need to be adjusted for proper coverage)

FIRST AID	
IF INHALED	<ul style="list-style-type: none"> • 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 ON SKIN OR CLOTHING	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
IF IN EYES	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
IF SWALLOWED	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
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 1-800-331-3148 for emergency medical treatment information.	
For Information Regarding the Use of this Product Call 1-800-321-1FMC(1362)	

PRECAUTIONARY STATEMENTS

Hazards to Humans (and Domestic Animals)

CAUTION

Causes moderate eye irritation. Harmful if inhaled, swallowed, or absorbed through skin. Avoid breathing dust. Do not get on skin, in eyes or on clothing. Prolonged or frequently repeated skin contact while mixing or handling may cause allergic reactions in certain individuals.

Environmental Hazards

This pesticide is toxic to marine/estuarine invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to terrestrial and aquatic plants in neighboring areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

Groundwater advisory: Sulfentrazone is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Do not use on coarse soils classified as sand which have less than 1% organic matter.

Surface water advisory: Sulfentrazone can contaminate surface water through spray drift. Under some conditions, sulfentrazone may also have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several to many months post-application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-lying tile drainage systems that drain to surface waters.

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. Reseal open bag by folding top down and securing. Store in a cool, dry place and avoid excess heat.

Pesticide Disposal

Securely wrap original container in several layers of newspaper and discard in trash.

Container Disposal

Do not reuse bag. Discard bag in Trash

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	Pounds per 1000 ft ²	Pounds 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.	1.01 – 1.49 lbs.	44 – 65 lbs.
Bluegrass, Kentucky (<i>Poa pratensis</i>) Fescue, tall ² (<i>Festuca arundinacea</i>)	0.57 – 0.75 ³ lb. ai.	2.02 – 3.0 lbs.	88 – 131 lbs.
Warm Season Grasses			
Bahiagrass (<i>Paspalum notatum</i>) Buffalograss (<i>Buchloe dactyloides</i>) Carpetgrass (<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.	2.02 – 3.0 lbs.	88 – 131 lbs.
Bermudagrass (<i>Cynodon dactylon</i>) & hybrids	0.75 – 1.125 ³ lb. ai.	3.0 – 4.5 lbs.	131 – 197 lbs.

- ¹ If bentgrass is mowed lower than 0.5 inches do not apply Echelon.
- ² Use of this product on certain varieties of Chewing Fine Fescue or Tall Fescue cultivars may result in undesirable injury.
- ³ Echelon may be applied more than once per year if needed as long as total amount applied does not exceed the maximum single application rate per turf type and the maximum yearly rate of 1.125 lbs. ai/acre (197 pounds/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 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 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.

Table 2.
Weed controlled from Pre-emergence application of Echelon

Common Name	Scientific Name
Barnyardgrass	(<i>Echinochloa crus-galli</i>)
Bluegrass annual 1	(<i>Poa annua</i>)
Carpetweed	(<i>Mollugo verticillata</i>)
Carolina Geranium	<i>Geranium carolinianum</i>
Chickweed, common 2	(<i>Stellaria media</i>)
Chickweed, mouseear (from seed)	(<i>Cerastium vulgatum</i>)
Crabgrass (large, smooth) 3	(<i>Digitaria spp.</i>)
Crowfootgrass	(<i>Dactyloctenium aegyptium.</i>)
Cupgrass, Woolly	(<i>Eriochloa villosa</i>)
Foxtails, Annual	(<i>Setaria spp.</i>)
Goosegrass 4	(<i>Eleusine indica</i>)
Hairy Bittercress	<i>Cardamine hirsuta</i>
Henbit 2	(<i>Lamium amplexicaule</i>)
Itchgrass	(<i>Rottboellia exaltata</i>)
Knotweed, prostrate	(<i>Polygonum aviculare</i>)
Kochia	(<i>Kochia scoparia</i>)
Kyllinga, green	(<i>Kyllinga brevifolia</i>)
Kyllinga, false	(<i>Kyllinga gracillima</i>)
Lambsquarters, common	(<i>Chenopodium album</i>)
Lovegrass	(<i>Eragrostis spp.</i>)
Nutsedge, yellow	(<i>Cyperus esculentus</i>)
Panicum (Texas, Fall)	(<i>Panicum spp.</i>)
Pigweed, Redroot	(<i>Amaranthus retroflexus</i>)
Purslane, Common	(<i>Portulaca oleracea</i>)
Pusley, Florida	(<i>Richardia scabra L.</i>)
Sedge, globe	(<i>Cyperus globulosus</i>)
Sedge, cylindrical	(<i>Cyperus retrofractus</i>)
Sedge, Surinam	(<i>Cyperus sunnamensis</i>)
Sedge, Texas	(<i>Cyperus polystachyos</i>)
Shepherdspurse 2	(<i>Capsella bursa-pastoris</i>)
Signalgrass, broadleaf	(<i>Brachiaria platyphylla</i>)
Speedwell	(<i>Veronica spp.</i>)
Sprangletop	(<i>Leptochloa spp.</i>)
Spurge, prostrate	(<i>Euphorbia humistrata</i>)
Witchgrass	(<i>Panicum capillare L.</i>)
Woodsorrel, yellow (from Seed)	(<i>Oxalis stricta</i>)

1. *Poa annua* is a winter annual, applications of Echelon should be made in August or September to established, non overseeded turf before *Poa Annua* germinates. Consult local Cooperative Extension Service for more specific applications timings for your local area since August – September are approximate timings.

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2. Apply Echelon in late summer, fall or winter before weed germinates for control.
3. Crabgrass control in cool season grasses from fall application:
Areas where the ground is subject to winter freezes, Echelon may be applied in the fall for cool season grasses when soil temperatures are below 50F, but prior to the ground freezing. This will provide control of crabgrass the following spring.
4. In areas of extended growing season and heavy pressure weed control will be enhanced by second application of Echelon 60 - 90 days after initial application

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

ECHOLON herbicide will control or suppress the weeds listed in Table 2 when applied shortly after weeds have emerged.

Table 2. Weeds Controlled or Suppressed by Echelon herbicide when application made post emergence to weeds.

Common Name	Scientific Name	Controlled	Suppressed
Bittercress	(<i>Cardamine</i> spp.)		X
Black medic	(<i>Medicago lupulina</i>)		X
Buttercups	(<i>Ranunculus</i> spp.)		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</i> spp.)		X
Clover	(<i>Trifolium</i> spp.)		X
Crabgrass (Large and Smooth)	(<i>Digitaria</i> spp.)	2	
Cudweed	(<i>Gnaphalium</i> spp.)		X
Dandelion	(<i>Taraxacum officinale</i>)		X
Dock, Curly	(<i>Rumex crispus</i>)		X
Evening primrose	(<i>Oenothera biennis</i>)		X
Fiddleneck	(<i>Amsinckia</i> spp.)		X
Filaree	(<i>Erodium</i> spp.)		X
Goldenrod	(<i>Solidago</i> spp.)	1	
Goosegrass	(<i>Elyusine 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>Soilva 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</i> spp.)	1	
Spurge, (annuals)	(<i>Euphorbia</i> spp.)	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 pratensis</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	

Conditions of Sale and Limitation 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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