

US ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF PESTICIDES PROGRAMS  
REGISTRATION DIVISION (75-767)  
WASHINGTON, DC 20460

EPA REGISTRATION NO.  
100-665

DATE OF ISSUANCE  
JAN 13 1986

NOTICE OF PESTICIDE:  REGISTRATION  
 REREGISTRATION  
(Under the Federal Insecticide, Fungicide,  
and Rodenticide Act, as amended)

TERM OF ISSUANCE  
Metolachlor Registration Standard

NAME OF PESTICIDE PRODUCT  
Pennant 5G Granular Herbicide

HOME ADDRESS OF REGISTRANT (Include ZIP code)

Agricultural Division  
Ciba-Geigy Corporation  
P.O. Box 18300  
Greensboro, NC 27419

NOTE: Changes in labeling formula 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 U.S. EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby Registered/Reregistered under the Federal Insecticide, Fungicide, and Rodenticide Act.

A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.

Registration is in no way to be construed as an indorsement or approval of this product by this 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.

Based on your response to the Registration Standard Guidance Package, EPA has registered the product listed above provided that you:

1. Make the labeling changes listed below before you release the product for shipment:

- a. Add the phrase "EPA Registration No. 100-665."
- b. Change the percentage of active ingredient declared on the label to 4.75% (based on lower limit). Alternatively, submit a revised Confidential Statement of Formula which certifies a lower limit for the active ingredient that will support the present label declaration.

Note: Proposed labeling requirements for pesticides (40 CFR Part 156.34(c)(1)(iii) dated September 26, 1984), when final, will allow for the expression of the nominal concentration of the active ingredient on the label.

ATTACHMENT IS APPLICABLE

SIGNATURE OF APPROVING OFFICIAL

DATE

JAN 13 1986

- c. On page 6, the statement beginning, "For broad spectrum weed control . . ." is too broad and should be modified to read ". . . Pennant 5G may be applied sequentially with other registered ornamental herbicides, such as Goal®, Princep®, or Ronstar®, for certain species. Refer to the respective product labels," or similar wording.

2. Submit one copy of your final printed labeling before you release the product for shipment. Refer to the A-79 Enclosure for a further description of final printed labeling.

A stamped copy of the label is enclosed for your records.

For future reference, the product chemistry data submitted in support of this registration were assigned EPA Accession No. 260764.

This registration is issued relying on results reported for acute oral, acute dermal, acute inhalation, primary eye and dermal irritation, and dermal sensitization studies (EPA Accession No. 260765) submitted for this product and previous review of your data (EPA Accession No. 246884) on the more concentrated Dual 15G Herbicide, EPA Registration No. 100-627.

A review of current data requirements (40 CFR Part 158, dated October 24, 1984) for metolachlor indicates that data, including mutagenicity testing and a rat metabolism study, may be required to complete the data base for this active ingredient.

Richard F. Mountfort *RFM*  
Product Manager (23)  
Fungicide-Herbicide Branch  
Registration Division (TS-767C)

Enclosures

Pennant™ 5G

Granular Herbicide

For weed control in ornamentals

25 Pounds  
Net Weight

Active Ingredient:

Metolachlor: 2-chloro-N-(2-ethyl-6-methylphenyl)- N-(2-methoxy-1-methylethyl) acetamide .....	5.0%
<hr/> Inert Ingredients:	<hr/> 95.0%
Total	100.0%

Control No.

Pennant 5G is a granular herbicide

Keep Out of Reach of Children

Caution

See additional precautionary statements on back of bag.

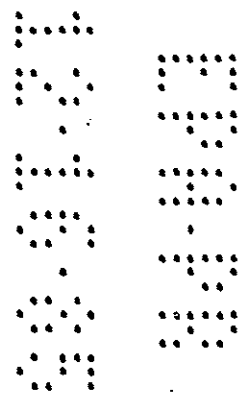
EPA Reg. No. 100-

See directions for use on back of bag

CIBA-GEIGY

**ACCEPTED**  
*with comments*  
JAN 13 1986 *Am*

Under the Federal Insecticide, Fungicide, and Plant Disease Act as amended, this product is registered under EPA Reg. No. 100-665



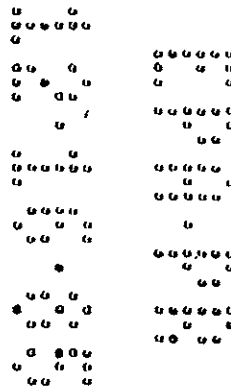
DIRECTIONS FOR USE AND CONDITIONS OF SALE AND WARRANTY

IMPORTANT: Read the entire Directions for Use and the Conditions of Sale and Warranty before using this product.

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 should be followed carefully. However, it is impossible to eliminate all risks inherently associated with 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 the manner of use or application all of which are beyond the control of CIBA-GEIGY or the Seller. All such risks shall be assumed by the Buyer.

CIBA-GEIGY 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. CIBA-GEIGY makes no other express or implied warranty of Fitness or Merchantability or any other express or implied warranty. In no case shall CIBA-GEIGY or the Seller be liable for consequential, special, or indirect damages resulting from the use or handling of this product. CIBA-GEIGY 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 CIBA-GEIGY.



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DIRECTIONS FOR USE

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

No user shall permit the application of this product in such a manner as to directly or indirectly expose workers or other persons except those knowingly involved in the application. The area being treated must be vacated by unprotected persons.

Reentry Statement

Do not enter treated areas without protective clothing until dust has settled.

Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. Oral warnings must be given which inform workers of areas or fields that may not be entered without specific protective clothing until dust has settled, and appropriate actions to take as described under Precautionary Statements at the end of this label. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information: "CAUTION. Area treated with Pennant 5G on (date of application). Do not enter without appropriate protective clothing until dust has settled. In case of accidental exposure, flush eyes or skin with plenty of water. Call a physician if irritation persists. Remove and wash contaminated clothing before reuse."

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, AND/OR ILLEGAL RESIDUES.

General Information

Pennant 5G is a granular herbicide containing 5 percent of the active ingredient, metolachlor. Pennant 5G will control many annual grasses, certain broadleaf weeds and yellow nutsedge in a number of ornamental species.

Weeds Controlled

barnyardgrass (watergrass)	green foxtail	yellow foxtail
crabgrass	prairie cupgrass	yellow nutsedge
crowfootgrass	red rice	black nightshade
fall panicum	signalgrass	carpetweed
foxtail millet	(Brachiaria)	Florida pusley
giant foxtail	southwestern cupgrass	galinsoga
goosegrass	witchgrass	pigweed

Weeds Partially Controlled\*: common purslane, hairy nightshade, sandbur, seedling johnsongrass, shattercane and volunteer sorghum.

\*Control of these weeds can be erratic due partially to variable weather conditions.

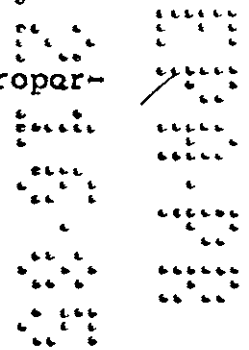
Ornamentals (Container, field and liner grown)

Apply Pennant 5G using a rotary spreader or similar type applicator at rates indicated for control of many annual grasses, certain broadleaf weeds and yellow nutsedge. Calibrate spreader before application according to the manufacturer's directions.

Broadcast Pennant 5G at the rate of 40-80 lbs. per acre on established ornamentals, or to ornamentals at least 5 days after transplanting, but before grass and broadleaf weeds or yellow nutsedge emerge, or after existing weeds or nutsedge plants have been removed. A second application may be needed to provide grass and yellow nutsedge control for an extended period. Do not make more than 2 applications per year.

Use the higher rate of Pennant 5G on fine-textured soils, on high organic matter soils, in potting mixes, and where yellow nutsedge and heavy infestations of grass weeds are expected. Use the lower rate on coarse-textured soils with low organic matter content, and where light infestations of grass weeds are expected.

If band applications are to be used, apply an amount proportional to the fraction of an acre treated.



Precautions: 1) Do not use Pennant 5G on seedbeds or on unrooted cuttings or prior to transplanting. 2) Do not apply Pennant 5G to ornamentals whose foliage is wet because the granules may adhere to the foliage and cause injury. Should granules adhere to the foliage, irrigate soon after application to remove the granules and reduce potential damage.

DO NOT USE IN GREENHOUSES OR OTHER ENCLOSED STRUCTURES.

Container Grown Ornamentals

Use in aucuba (Aucuba spp.), holly (Ilex spp.), juniper (Juniperus spp.), and lirioppe (Lirioppe spp.) var. Silver Sunproof.

Field and Liner Grown Ornamentals

Use Pennant 5G in the following:

- African Lily (Agapanthus africanus)
- Arborvitae (Thuja spp.) including Globe
- Aucuba (Aucuba spp.)
- Azalea (Rhododendron spp.), Hershey Red, Herbert, Purple Splendor
- Bamboo, Heavenly (Nandina domestica)
- Barberry (Berberis spp.), Mentor, Warty, Wintergreen
- Box Tree (Buxus spp.)
- Camellia (Camellia spp.)
- Cotoneaster (Cotoneaster spp.)
- Crabapple (Malus spp.)
- Crape Myrtle (Lagerstroemia spp), including Byars White
- Dogwood (Cornus spp.), Red Stem
- Escallonia (Escallonia fradesii)
- Euonymus (Euonymus spp.) including Bigleaf Winter Creeper, Purpleleaf Winter Creeper,
- Fir, Douglas (Pseudotsuga menziesii)
- Honeysuckle (Lonicera spp.) including Emerald Mound
- Hybrid Tea Rose (Rosa spp.)
- Ivy, (English) (Hedera spp.)
- Japanese Andromeda (Pieris spp.)
- Japanese Red Maple (Acer spp.)
- Jasmine (Jasminum spp.)
- Juniper (Juniperus spp.), including Andorra, Creeping, Shore, Bar Harbor, Blue Rug, Youngstown Andorra, and Sea Green
- Leucothoe (Leucothoe spp.)
- Lilac (Syringa spp.) James McFarland
- Lirioppe (Lirioppe spp.) Silver Sunproof
- Maple whips (Acer spp.)
- Miniature Rose (Rosa spp.)
- Mountain Laurel (Kalmia spp.)
- Ninebark (Physocarpus spp.) including Dwarf
- Mountain Laurel (Kalmia spp.)
- Osmanthus (Osmanthus spp.)
- Pachysandra (Pachysandra spp.)
- Photinia (Photinia spp.)

Fir, White (Abies concolor)  
Firethorn (Pyracantha spp.)  
Forsythia (Forsythia spp.)  
 including Arnold's Dwarf,  
 Golden Bells, and Spring  
 Glory  
Fortnight Lily (African Iris)  
Holly (Ilex spp.), American,  
 Boxleaf Japanese, Japanese,  
 Green Lustre Japanese

Pine (Pinus spp.) including  
 (Austrian and Mugho, and  
 Scotch)  
Podocarpus (Podocarpus spp.)  
Potentilla (Cinquefoil)  
 (Potentilla spp.)  
Privet (Ligustrum spp.)  
Red Oak (Quercus spp.)  
Rhododendron (Rhododendron spp.)  
Rosebay (Rhododendron spp.)  
Sand Cherry (Prunus spp.),  
 including purpleleaf  
Spiraea (Spiraea spp.) including  
 Froebel's and Vanhoutte  
Spruce (Picea spp.) including  
 Black Hills, Blue Colorado  
St. John's Wort (Hypericum spp.)  
 including Kalm  
Sweet Broom (Cytisus racemosus)  
Viburnum (Viburnum spp.),  
 including Downy Arrowwood  
Weigela (Weigela spp.)  
Yew (Taxus spp.), Dwarf  
 Japanese, Hicks  
Yaupon, Dwarf (Ilex spp.)

*S. qu. ...*

*Check label*

For broader spectrum weed control, Pennant 5G may be applied in  
 conjunction with other registered herbicides for <sup>CERTAIN</sup> ornamentals such  
 as Goal<sup>®</sup>, Princep<sup>®</sup>, or Ronstar<sup>®</sup>.

NOT REGISTERED FOR ALL ABOVE SPECIES (-)

Storage and Disposal

CERTAIN UNIFER SPECIES ONLY IN ABOVE LIST

Pesticide

Store in a dry place. Do not contaminate water, food, or feed by storage, disposal, or cleaning of equipment. Open dumping is prohibited. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container

Completely empty bag into application equipment. Dispose of empty bag in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke from burning bags.

For minor spills, follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during clean up, procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call (919) 292-7100 day or night.



Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin or inhaled. Avoid contact with skin, eyes or clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling and wash contaminated clothing before reuse.

Statement of Practical Treatment

If in eyes: Flush with plenty of water. Call a physician if irritation persists.

If on skin: Wash with plenty of soap and water. Get medical attention.

If inhaled: Remove victim to fresh air.

Environmental Hazards

Do not apply directly to water or wetlands. Do not apply where runoff is likely to occur. Do not contaminate water by cleaning of equipment or disposal of wastes.

Goal® trademark of Rohm and Haas Company for oxyfluorfen

Pennant™ trademark of CIBA-GEIGY Corporation for metolachlor

Princep® trademark of CIBA-GEIGY Corporation for simazine

Ronstar® trademark of Rhone-Poulenc for oxidiazon

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Agricultural Division  
CIBA-GEIGY Corporation  
Greensboro, NC 27419

CGA

December 11, 1985

