

PM 22


62719-234

5-16-97

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Please read instructions on reverse before completing form.

Form Approved. OMB No. 2070-0060. Approval expires 05-31-98

 United States Environmental Protection Agency Washington, DC 20460	<input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Other Notification	OPP Identifier Number 253267
	Application for Pesticide Section I	

1. Company/Product Number DowElanco/62719-234	2. EPA Product Manager Cynthia Giles-Parker	3. Proposed Classification <input type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) DowElanco/Profile* 2SC Tree Growth Regulator	PM# 22	
5. Name and Address of Applicant (Include ZIP Code) DowElanco 9330 Zionsville Road Indianapolis, IN 46268 <input type="checkbox"/> Check if this is a new address	6. Expedited Review: In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)


- Precautionary Statement - placement of the KORAC Statement and Signal word changed in accordance with policy letter from EPA label unit dated March 1997 - Added Spanish statement
- Application Rates - updated graphics

NOTIFICATION
MAY 16 1997

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes* <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____	
* Certification must be submitted		If "Yes" Unit Packaging wgt. _____	No. per container _____	If "Yes" Package wgt _____	No. per container _____
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container		5. Location of Label Directions <input type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product			<input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		
			<input type="checkbox"/> Other _____		

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Steve A. McMaster	Title Regulatory Manager	Telephone No. (Include Area Code) (317) 337-4670
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment, or both under applicable law.		6. Date Application Received (Stamped)
2. Signature 	3. Title Regulatory Manager	
4. Typed Name Steve A. McMaster	5. Date 5/23/97	

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Profile* 2SC

Tree Growth Regulator

62719-234

Registration Notes:

Current label text based on EPA accepted copy dated April 28, 1997.

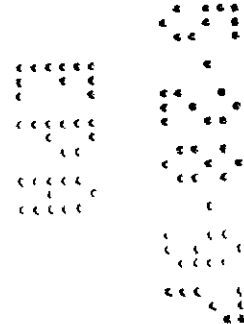
Proposed Label Changes by Notification coded "K5A/Profile 2SC/Notif/05-21-97":

1. Precautionary Statements
 - Placement of KORAC Statement and Signal Word changed in accordance with policy letter from EPA labeling unit dated March 26, 1997.
 - Added Spanish Statement
2. Application Rates
 - Updated graphics.

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New placement of KORAC/Signal Word

NOTIFICATION
MAY 16 1997



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Profile* 2SC

Tree Growth Regulator

62719-234

Registration Notes for Previous Labeling Actions:

Final Printed Label: Label text based on EPA-accepted copy dated April 28, 1997 with the following conditions:

Changes requested by EPA as conditions of acceptance:

1. Storage and Disposal Directions:

- Added to base label

2. General Use Precautions:

- **Second Bullet** revised to read: Trees not used for food production that are not specifically listed on this label may be treated if all other label directions are followed.

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Editor's Note: Added text underlined, deleted text denoted by strike through.

Proposed label amendment: Current label text based on EPA-accepted text dated May 26, 1995.

Proposed Changes by Amendment:

Directions for Use Section:

1. General Information text edited for clarity.
2. "Approved Uses" section changed to "Application Methods".
3. Revised tree groupings relative to application rates and consolidated elms, maples and oaks to include all species.
4. Added guidance on when to use higher rate in rate range.
5. Added Figures 1 and 2 illustrating correct application techniques.
6. Revised application rate table and increased the number of injection sites per tree to improve uniformity of growth regulation.

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Editor's Note: Added text underlined, deleted text denoted by strike through.

NOTIFICATION
MAY 16 1997

Final Printed Labeling: Label text based on EPA-accepted copy dated May 26, 1995 and the following conditions of acceptance:

The following sentence in the General Use Precautions section was revised in accordance with EPA conditions of acceptance: "Trees not specifically identified on this label may be treated if all other label recommendations are followed." was revised to read "Trees not used for food production and not specifically identified on this label may be treated if all other label recommendations are followed."

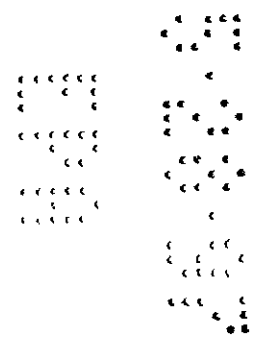
Revisions EPA-Accepted 05/26/95:

1. **Precautionary Statements:** Added use of protective eyewear while mixing and applying as basal drench.
2. **Environmental Hazards:** Added statement to allow application in "seasonally dry" wetland areas.
3. **Storage and Disposal:** "Storage" statement revised to include use of waste material as directed by label.
4. **General Information:** Added the following statement for tree species not listed on this label: "Trees not specifically identified on this label may be treated if all other label recommendations are followed."
5. **Directions for Use:** (1) Minor editing for clarity; (2) Expanded rate tables for treatment of larger trees; (3) Adjusted application rate for certain species of oak.

Note: EPA notified DowElanco that the amended label for Profile as submitted on January 23, 1995, was unacceptable. The Agency objected to amendments as indicated in items 1, 2, and 3 above. In this final printed labeling, the changes proposed in items 1, 2 and 3 above have been deleted. The following revisions (items 4 and 5, above) were retained:

1. **General Information:** Added the following statement for tree species not listed on this label: "Trees not specifically identified on this label may be treated if all other label recommendations are followed."
2. **Directions for Use:** (1) Minor editing for clarity; (2) Expanded rate tables for treatment of larger trees; (3) Adjusted application rate for certain species of oak.

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(Base Label)

(Logo) DowElanco

Profile* 2SC

Tree Growth Regulator

For the reduction of terminal growth and pruning volume in trees not used for food production on sites such as utility rights-of-way, urban environments, residential areas and non-crop areas.

Active Ingredient:

paclobutrazol: (R*,R*)-(±)-β-[(4-chlorophenyl) methyl]-α-(1,1-dimethylethyl)-1H-1,2,4-triazole-1-ethanol21.8%

Inert Ingredients78.2%

Total100.0%

Contains 2 pounds of active ingredient/gallon

U.S. Patent No. 4,243,405

Keep Out of Reach of Children

CAUTION PRECAUCION

Precaución al usuario: Si usted no lee inglés, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

Precautionary Statements

Hazards to Humans and Domestic Animals

Keep Out of Reach of Children

CAUTION

Harmful If Swallowed Or Absorbed Through The Skin

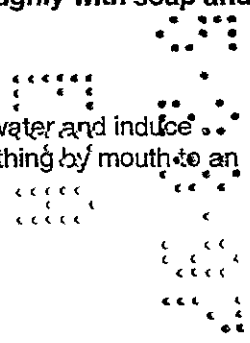
Avoid contact with eyes, skin or clothing. Wear protective clothing, long-sleeved shirt, and rubber gloves. Remove contaminated clothing and wash before reuse. Wash thoroughly with soap and water after handling.

First Aid

If **swallowed**: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

If **on skin**: Wash with plenty of soap and water.

If **in eyes**: Flush with plenty of water. Get medical attention if irritation persists.



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Environmental Hazards

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

Physical or Chemical Hazards

Do not use or store near heat or open flame.

Storage and Disposal

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container.

Storage: Keep container closed when not in use. Do not store near food or feed. Protect from freezing. In case of spill or leak on floor or paved surfaces, soak up with sand, earth or synthetic absorbent. Remove to chemical waste area.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these cannot be used 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.

Plastic Container Disposal: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Refer to attached booklet for additional precautionary information and Directions for Use.

Notice: Read the entire label. Use only according to label directions. Before buying or using this product, read "Warranty Disclaimer" and "Limitation of Remedies" inside label booklet.

In case of emergency endangering health or the environment involving this product, call collect 517-636-4400.

Specialty Chemical: Do not ship or store with food, feeds, drugs or clothing.

Shake Well Before Use

Product Must be Diluted Before Use

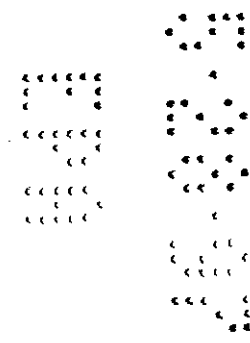
EPA Reg. No. 62719-234

EPA Est. 1471-IN-5

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DowElanco • Indianapolis, IN 46268 USA

Specialty Growth Regulator

Net Contents 1 Gal



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(Label Booklet)

(Logo) DowElanco

Profile* 2SC

Tree Growth Regulator

For the reduction of terminal growth and pruning volume in trees not used for food production on sites such as utility rights-of-way, urban environments, residential areas and non-crop areas.

Active Ingredient:

paclobutrazol: (R*,R*)-(±)-β-[(4-chlorophenyl) methyl]-α-(1,1-dimethylethyl)-1H-1,2,4-triazole-1-ethanol	21.8%
Inert Ingredients	78.2%
Total	100.0%

Contains 2 pounds of active ingredient/gallon

U.S. Patent No. 4,243,405

Keep Out of Reach of Children

CAUTION PRECAUCION

Precaucion al usuario: Si usted no lee inglés, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

Refer to inside of label booklet for additional precautionary information and Directions for Use including STORAGE AND DISPOSAL.

Notice: Read the entire label. Use only according to label directions. **Before buying or using this product, read "Warranty Disclaimer" and "Limitation of Remedies" inside label booklet.**

In case of emergency endangering health or the environment involving this product, call collect 517-636-4400.

Specialty Chemical: Do not ship or store with food, feeds, drugs or clothing.

Shake Well Before Use

Product Must be Diluted Before Use

EPA Reg. No. 62719-234

EPA Est. 1471-IN-5

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Specialty Growth Regulator

Net Contents 1 Gal



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(Page 1 through end):

Precautionary Statements

Hazards to Humans and Domestic Animals**CAUTION****Harmful If Swallowed Or Absorbed Through The Skin**

Avoid contact with eyes, skin or clothing. Wear protective clothing, long-sleeved shirt, and rubber gloves. Remove contaminated clothing and wash before reuse. Wash thoroughly with soap and water after handling.

First Aid

If swallowed: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

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

If in eyes: Flush with plenty of water. Get medical attention if irritation persists.

Environmental Hazards

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

Physical or Chemical Hazards

Do not use or store near heat or open flame.

Directions for Use

It is a violation of Federal law to use this product in manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

Storage and Disposal

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container.

Storage: Keep container closed when not in use. Do not store near food or feed. Protect from freezing. In case of spill or leak on floor or paved surfaces, soak up with sand, earth or synthetic absorbent. Remove to chemical waste area.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these cannot be used 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.

Plastic Container Disposal: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

General Information

Profile* 2SC tree growth regulator is a xylem mobile plant growth regulator that slows vegetative growth by inhibiting gibberellin biosynthesis. Profile 2SC reduces vegetative growth thereby reducing the volume of woody growth that must be removed from trees when trimming occurs and may extend the trimming cycle. Profile 2SC is equally effective when applied as a basal soil drench or by soil injection.

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Profile 2SC can be used on listed trees found in areas such as utility rights-of-way, urban environments, residential areas and other non-crop areas.

Symptoms of Growth Regulation: Profile 2SC demonstrates little or no phloem mobility. Activity occurs following root uptake and xylem translocation throughout the tree canopy. Symptoms of growth regulation may not be visible for up to 18 months following application of Profile 2SC. Initial effects of Profile 2SC may be observed as intense greening of foliage with no resulting phytotoxicity. At the time when normal vegetative growth extension should occur, trees treated with Profile 2SC will exhibit shortened internodes which may be somewhat thickened. Smaller leaf size and enhanced flowering may also be observed in some species.

General Use Precautions

- Apply at recommended rates and follow safety procedures.
- Trees not used for food production that are not specifically listed on this label may be treated if all other label directions are followed.
- Trees which are severely stressed due to moisture, temperature, low soil fertility, or exhibit mechanical or chemical injury should not be treated.
- Do not reapply Profile 2SC until symptoms from previous applications begin to subside.
- If soil is heavily compacted or a high water table exists, use of a registered tree growth regulator such as Cutless* Tree Implants may be more satisfactory.
- Basal drench and soil injection application of Profile 2SC may result in localized, temporary discoloration of turfgrass immediately adjacent to the treatment site.
- Avoid basal drench applications on slopes or other areas where Profile 2SC or treated soil may be washed away from the base of the tree by rainfall or irrigation.
- Treatment of trees bordered by shrubs and/or herbaceous ornamentals may cause these plants to be affected if their roots extend into the treatment zone.
- Do not treat sugar maple trees or any other trees that are or could be tapped for sugar.
- Do not treat nut or fruit trees that will be harvested within one year.

Chemigation: Do not apply this product through any type of irrigation system.

Application Timing

Applications can be made throughout the year, weather permitting, except when soil is frozen or saturated with water. **Note:** Profile 2SC is absorbed by plant roots and translocated to the growing tissues in response to evaporative water loss (transpiration). If applications are made after fall leaf drop, uptake of Profile 2SC will not occur until development of new leaves in the spring and resumption of evaporative water loss.

Mixing Directions

Mix 317 ml (10.7 fl oz) of Profile 2SC with water to make one gallon of diluted mixture. One gallon of Profile 2SC will make 12 gallons of diluted mixture. To improve the handling characteristics of the diluted mixture, the addition of a suspension aid is recommended. Follow all label directions and precautions on the product label of the suspension aid.

Application Methods

Profile 2SC may be applied as a basal drench or by soil injection. Treat only trees that are well established in their final location. Treatment of trees less than 4 inches in diameter is not recommended.

Basal Drench

Apply the required dose [total ml required for the application rate and tree size (DBH)] uniformly around the base of the tree at the point of contact between the soil and the tree trunk (Figure 1). The diluted mixture of Profile 2SC may be carefully poured around the tree or an applicator which provides a controlled rate of flow may be used. If there is potential for rainfall or irrigation to move surface applied

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product to non-target plants, apply Profile 2SC diluted mixture to the bottom of a shallow furrow around the base of the tree. After applying, refill the furrow with untreated soil.

Soil Injection

The diluted mixture of Profile 2SC should be injected approximately 6 inches deep. Use soil injection equipment capable of delivery at 100 to 200 psi. Injection orifices should be oriented to release the diluted product horizontally at the point of injection. The required dose should be divided evenly among injection sites spaced as uniformly as possible around the tree trunk. The injection sites should be positioned to release Profile 2SC diluted mixture as close as possible to the point of contact between soil and unthickened bark beneath the soil so that the active ingredient may be readily absorbed by the tree (Figure 2). Injection sites should also be located next to buttress roots (Figure 2). For trees less than 6 inches DBH, use at least 4 evenly spaced injection sites per tree.

Application Rates

Application Rate Ranges for Diluted Mixture of Profile 2SC for Treatment of Various Tree Species†		
50 to 100 ml (1 to 2 grams a.i.) per inch DBH	100 to 150 ml (2 to 3 grams a.i.) per inch DBH	150 to 200 ml (3 to 4 grams a.i.) per inch DBH
Sweetgum Australian Pine	American Basswood Boxelder Elm(s) Eucalyptus Hackberry Littleleaf Linden	Locust Maple(s) Oak(s) Sassafrass Ash Bradford Pear Sycamore Tuliptree Weeping Willow

†For acidic soils (low pH), soils with high organic matter content or soils with high clay content, use the higher rate in the rate range.

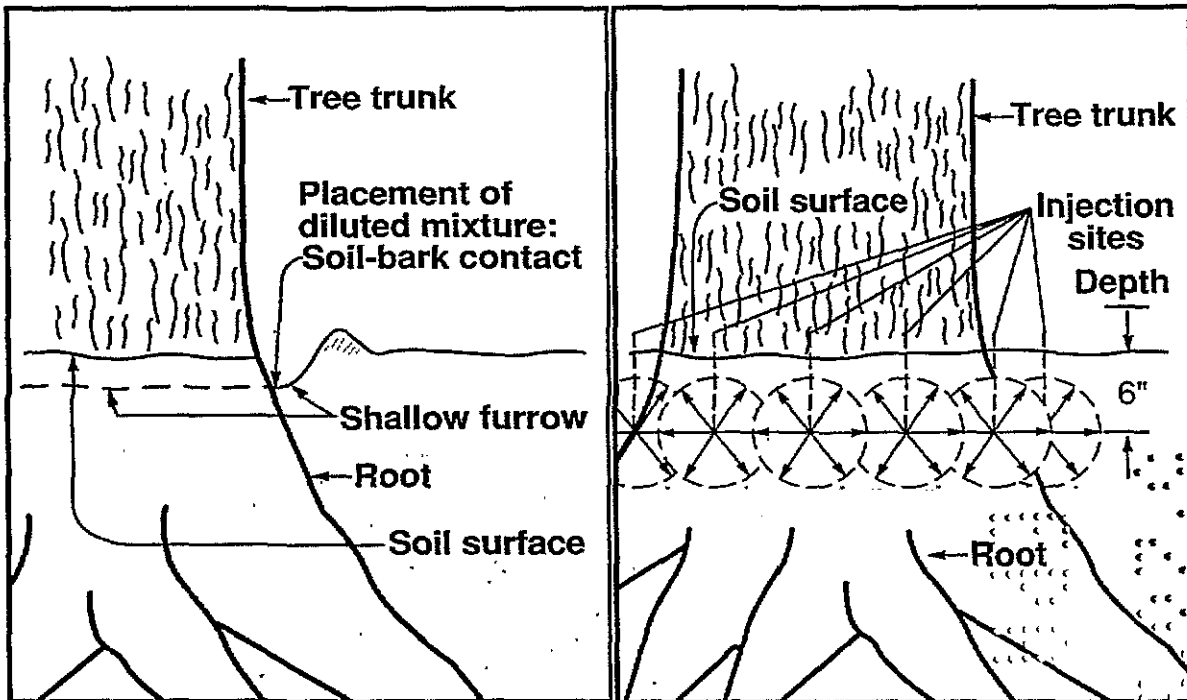


Figure 1. Placement Profile 2SC as basal drench.

Figure 2. Placement of Profile 2SC as a soil injected treatment.

**Amount Of Profile 2SC Diluted Mixture Required For
Specific Application Rates And Tree Sizes:**

Dia. of Tree at Breast Height (DBH) (Inches)	50 ml per inch DBH	100 ml per inch DBH	150 ml per inch DBH	200 ml per inch DBH
	Total ml Required	Total ml Required	Total ml Required	Total ml Required
4	200	400	600	800
5	250	500	750	1000
6	300	600	900	1200
7	350	700	1050	1400
8	400	800	1200	1600
9	450	900	1350	1800
10	500	1000	1500	2000
11	550	1100	1650	2200
12	600	1200	1800	2400
13	650	1300	1950	2600
14	700	1400	2100	2800
15	750	1500	2250	3000
16	800	1600	2400	3200
17	850	1700	2550	3400
18	900	1800	2700	3600
19	950	1900	2850	3800
20	1000	2000	3000	4000
21	1050	2100	3150	4200
22	1100	2200	3300	4400
23	1150	2300	3450	4600
24	1200	2400	3600	4800
25	1250	2500	3750	5000
26	1300	2600	3900	5200
27	1350	2700	4050	5400
28	1400	2800	4200	5600
29	1450	2900	4350	5800
30	1500	3000	4500	6000
31	1550	3100	4650	6200
32	1600	3200	4800	6400
33	1650	3300	4950	6600
34	1700	3400	5100	6800
35	1750	3500	5250	7000
36	1800	3600	5400	7200

Warranty Disclaimer

DowElanco warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. DowElanco MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

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Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to the label instructions (including adverse conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of DowElanco or the seller. All such risks shall be assumed by the buyer.

Limitation of Remedies

The exclusive remedy for losses or damages resulting from the use of this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at DowElanco's election, one of the following:

- (1) Refund of purchase price paid by buyer or user for product bought, or
- (2) Replacement of amount of product used

DowElanco shall not be liable for losses or damages resulting from handling or use of this product unless DowElanco is promptly notified of such loss or damage in writing. In no case shall DowElanco be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer above and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of DowElanco or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

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EPA-Accepted 04/28/97

