

19713-505

2/14/2013

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460-0001



OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

February 14, 2013

Luz G. Chan  
Drexel Chemical Company  
P.O. Box 13327  
Memphis, TN 38113-0327

Subject: Notification to correct equipment calibration footnotes and correct use rates for tobacco and sweet potato, per Pesticide Registration Notice 98-10

Dear Mr. Avalos,

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10, dated January 18, 2013, for "Drexel Chlorpyrifos 15G," EPA Registration Number 19713-505.

The Registration Division (RD) has conducted a review of your request for applicability under PRN 98-10, and finds that the changes requested are acceptable. Therefore, the label submitted with your application has been stamped "Notification," and will be placed in our files.

Please contact me at (703) 308-8735 or [chao.julie@epa.gov](mailto:chao.julie@epa.gov) if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Julie A. Chao".

Julie A. Chao  
Insecticide-Rodenticide Branch  
Registration Division (7505P)  
Office of Pesticide Programs

2816



United States  
**Environmental Protection Agency**  
 Washington, DC 20460

Registration  
 Amendment  
 Other

OPP Identifier Number

**Application for Pesticide - Section I**

1. Company/Product Number 19713-505	2. EPA Product Manager Venus Eagle	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) DREXEL CHLORPYRIFOS 15G	PM# 1 / IRB	
5. Name and Address of Applicant (Include ZIP Code) Drexel Chemical Company P.O. Box 13327 Memphis, TN 38113-0327 <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**

Amendment - Explain below.  Final printed labels in response to Agency letter dated \_\_\_\_\_  
 Resubmission in response to Agency letter dated \_\_\_\_\_  "Me Too" Application.  
 Notification - Explain below.  Other - Explain below.

**NOTIFICATION**

**FEB 14 2013**

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

Submission of revised label to correct the footnotes in the Equipment Calibration table and rate for Tobacco use. Details are in the accompanying cover letter.

This notification is consistent with the provisions of PR Notice 98-10 and EPA Regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the Confidential Statement of Formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under Sections 12 and 14 of FIFRA.

**Section - III**

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Type of Container <input type="checkbox"/> Metal <input checked="" 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  
 Label  Container

4. Size(s) Retail Container  
less than 5 gallons; 5 gallons and greater

5. Location of Label Directions  
 On the label

6. Manner in Which Label is Affixed to Product  
 Lithograph  Paper glued  Stenciled  Other \_\_\_\_\_

**Section - IV**

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)

Name Luz G Chan	Title Registration Manager	Telephone No. (Include Area Code) (901) 774-4370
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**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.

2. Signature  
*Luz G Chan*

3. Title  
Registration Manager

4. Typed Name  
Luz G Chan

5. Date  
January 18, 2013

6. Date Application Received  
(Stamped)



**Drexel Chemical Company**

3716

January 18, 2013

Document Processing Desk (NOTIF)  
Office of Pesticide Programs (7504P)  
U.S. Environmental Protection Agency  
Rm S-4900, One Potomac Yard  
2777 S Crystal Drive, Arlington, VA 22202

**NOTIFICATION**

**FEB 14 2013**

**Re: Submission of Revised Label by Notification per PR Notice 98-10  
DREXEL CHLORPYRIFOS 15G (EPA Reg. No. 19713-505)**

Sir / Madam:

Submitted, herewith, is completed EPA form 8570-1.

Also please find two copies (marked and unmarked) of the label (505SP-1212\*) with the following changes:

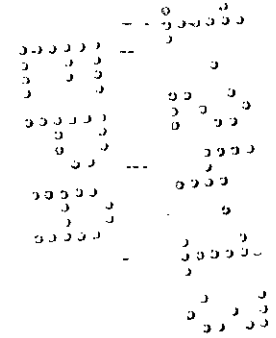
- On page 5, the footnotes in the Equipment Calibration table were corrected per the January 8, 2008 EPA Stamped Accepted label for EPA Reg. No. 19713-505.
- On page 12, the use rate for tobacco and sweet potato was changed from 13.5 pounds per acre to 13.3 pounds per acre consistent with the stated maximum single application rate of 2 pounds chlorpyrifos a.i. (13.3 lbs. of this product) per acre stated under the "Use Precautions and Restrictions".

If you have questions/clarification regarding this submission, I can be reached at (901) 774-4370 or e-mail [Lchan@drexchem.com](mailto:Lchan@drexchem.com).

Thank you.

Respectfully yours,  
FOR DREXEL CHEMICAL COMPANY

Luz Chan  
Registration Manager



4716

GROUP 1B INSECTICIDE



# Chlorpyrifos 15G

Agricultural Insecticide

<b>ACTIVE INGREDIENT:</b>		
Chlorpyrifos.....	15.0%	
<b>OTHER INGREDIENTS:</b>	85.0%	
<b>TOTAL:</b>	100.0%	

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

**NOTIFICATION**

See **FIRST AID** Below

**FEB 14 2013**

EPA Reg. No. 19713-505  
EPA Est. No. 19713-GA-1

Net Content: 50 LBS.

<b>FIRST AID</b> <b>Organophosphate</b>	
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious or convulsing person.</li> </ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information on this pesticide product (including health concerns, medical emergencies or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378.</p>	
<p><b>NOTE TO PHYSICIAN:</b> Chlorpyrifos is a cholinesterase inhibitor. Treat symptomatically. If exposed, plasma and red blood cell cholinesterase tests may indicate significance of exposure (baseline data are useful). Atropine, only by injection, is the preferable antidote. Oximes, such as 2-PAM/protopam, may be therapeutic if used early; however, use only in conjunction with atropine. In case of severe, acute poisoning, use antidote immediately after establishing an open airway and respiration.</p>	

50ESP-1212\*

**PRECAUTIONARY STATEMENTS**

**Hazards to Humans and Domestic Animals**

**CAUTION:** Harmful if swallowed. Causes eye irritation. Avoid contact with eyes, skin or clothing. Avoid breathing dust.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some materials that are chemical-resistant to this product are barrier laminate and viton. For more information, following instructions in Supplement Three of PR Notice 93-7. If you want more options, follow the instructions for category G on an EPA chemical-resistance category selection chart.

**Loaders, applicators and all other handlers must wear:** Coveralls over long-sleeved shirt and long pants, chemical-resistant gloves, chemical-resistant footwear plus socks and a NIOSH-approved dust/mist filtering respirator with MSHA/NIOSH approved number prefix TC-21C or NIOSH-approved respirator with any R, P, or HE filter.

See Engineering Controls for additional requirements.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

**ENGINEERING CONTROLS**

Pilots must use an enclosed cockpit in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)]. When applicators use closed cab motorized ground equipment in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**USER SAFETY RECOMMENDATIONS**

**Users should:** 1) Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. 2) Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 3) 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**

This pesticide is toxic to fish, aquatic invertebrates, small mammals and birds. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when cleaning equipment or disposing of equipment washwater or rinsate.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all "DIRECTIONS FOR USE" before applying. 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.

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, 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), restricted entry interval (REI), and notification of workers. The requirements in this box only apply to uses of this product that are covered by the WPS.

**Exception:** If this product is injected or incorporated into the soil, the WPS allows workers to enter the treated area if there will be no contact with anything that has been treated under certain circumstances.

(continued)

(continuation)

Certified crop advisors or persons entering fields under their direct supervision, under certain circumstances may be exempt from the early re-entry requirement pursuant to 40 CFR Part 170.

Do not enter or allow entry into treated areas during the REI. The REI for each crop is listed in the directions for use associated with each crop.

PPE required for early entry to treated areas that is permitted under the WPS and that involves contact with anything that has been treated, such as plants, soil or water is: Coveralls over short-sleeved shirt and short pants, chemical-resistant footwear plus socks, chemical-resistant gloves made of any waterproof material, and chemical-resistant headgear for overhead exposure.

Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

### RESISTANCE MANAGEMENT

#### GROUP 1B INSECTICIDE

CHLORPYRIFOS 15G contains a Group 1B insecticide. Insect and mite biotypes with acquired resistance to Group 1B may eventually dominate the insect/mite population if Group 1B insecticides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by this product or other Group 1B insecticides.

- The following practices are recommended to delay development of insecticide resistance:
- Avoid consecutive use of insecticides with the same mode of action (same insecticide group) on the same insect species.
  - Use tank mixtures or premix product containing insecticides with different modes of action (different insecticide groups), provided the products are registered for use.
  - Base insecticide use on comprehensive Integrated Pest Management (IPM) programs.
  - Monitor treated insect populations in the field for loss of effectiveness.
  - Contact your Local Agricultural Extension Specialist, certified crop advisor, or Manufacturer for insecticide resistance management and/or IPM recommendations for the specific site and resistant pest problems.

### SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator is responsible for considering all of these factors when making decisions to apply this product.

The following buffer distances specified in the below table are distances in feet that must exist to separate sensitive sites from the targeted application site. Buffers are measured from the edge of the sensitive site to the edge of the application site. Sensitive sites are areas frequented by non-occupational bystanders (especially children). These include residential lawns, pedestrian sidewalks, outdoor recreational areas such as school grounds, athletic fields, parks, and all property associated with buildings occupied by humans for residential or commercial purposes. Sensitive sites include homes, farm worker housing, or other residential buildings, schools, daycare centers, nursing homes, and hospitals. Non-residential agricultural buildings, including barns, livestock facilities, sheds, and outhouses are not included in this prohibition.

Only pesticide handlers are permitted in the setback area during application of this product. Do not apply this product if anyone other than a mixer, loader, or applicator is in the setback area. **Exception:** Vehicles and persons riding bicycles that are passing through the setback area on public or private roadways are permitted.

**[Note:** The required buffer zones below **do not** apply when this product is applied via furrow, T-banded, or post-emergent banded application methods.]

7-8-16

Application Rate (lb. a.i./A) [Lbs. of this Product per Acre]	Required Setback (Buffer Zones) (feet)	
	Aerial	Ground*
> 0.5 to 1 [> 3.33 to 6.66]	25	10
> 1 to 2 [> 6.66 to 13.33]	Not allowed	10
> 2 to 3 [> 13.33 to 20]	Not allowed	10
> 3 to 4 [> 20 to 26.66]	Not allowed	10
> 4 [> 26.66]	Not allowed	10

\*The required buffer zones for ground application apply to applications made via spreaders.

**RATES OF APPLICATION**

Do not apply this product by aircraft at a rate greater than 1 pound chlorpyrifos a.i. (6.6 lbs. of this product) per acre.

Rates of Application per 1,000 Feet of Row and Equivalent Acreage at Different Row Spacings								
This Product per 1,000 Feet of Row (ounces)	Required Amount of This Product per Acre (ounces) for Various Row Spacings							
	40"	38"	36"	34"	32"	30"	22"	18"
3.7	3.0	3.2	3.4	3.6	3.8	4.0	5.5	6.7
4.0	3.3	3.4	3.6	3.8	4.1	4.4	5.9	7.3
4.5	3.7	3.9	4.1	4.3	4.6	4.9	6.7	8.2
6.0	4.9	5.2	5.4	5.8	6.1	6.5	8.9	10.9
6.5	5.3	5.6	5.9	6.2	6.6	7.1	9.7	11.8
7.5	6.1	6.4	6.8	7.2	7.7	8.2	11.1	13.6
8.0	6.5	6.9	7.3	7.7	8.2	8.7	11.9	14.5
9.0	7.4	7.7	8.2	8.6	9.2	9.8	13.4	16.3
12.0	9.8	10.3	10.9	11.5	12.3	13.1	17.8	21.8
15.0	12.3	12.9	13.9	14.4	15.3	16.3	22.3	27.2
16.0	13.1	13.8	14.5	15.4	16.3	17.4	23.8	29.0

**CALIBRATION OF EQUIPMENT**

**Note:** The chart below lists recommended initial gauge settings for application of this product with one hopper opening per row. Be sure to check the actual application rate under your operating conditions.

1. Fill hopper.
2. Attach a plastic bag to tube opening.
3. Set planter to the initial settings shown on table.
4. Measure off 1,000 feet of row and drive planter the premeasured distance at desired speed.
5. Each bag should contain 6 to 8 ounces of granules, depending upon desired rate.
6. If the result is over or under the desired rate, adjust settings and repeat the calibration.

Equipment Calibration and Calibration Settings for Different Types of Equipment										
Planter Type	Speed (mph)									
	4		5		6		7		8	
	This Product per 1,000 Feet of Row (ounces)									
	8	16	8	16	8	16	8	16	8	16
Gauge Setting										
Gandy <sup>1</sup>	21.4	30.2	23.7	32.4	26.0	36.0	27.7	39.0	30.2	41.0
John Deere <sup>1</sup> Max-Emerge <sup>2</sup>	20	44	26	46	30	49	35	52	40	54
John Deere <sup>1</sup> 7000 Max-emerge (Odd Nos. on Gate)	14	22	16	24	18	26	19	28	21	30
John Deere <sup>1</sup> 7000 Max-emerge (Even Nos. on Gate)	17	30	20	33	24	35	26	36	28	38
John Deere <sup>2</sup> 71 Flexi-Planter & Older Planters	1/30	2/17	2/5	2/22	2/9	2/27	2/13	2/31	2/16	3/16
John Deere <sup>3</sup> Max-Emerge Plus	18	-	23	-	29	-	33	-	39	-
Allis Chalmers <sup>4</sup> 70 Series	8	13	8	13	8	13	8	13	8	13
Allis Chalmers <sup>5</sup> 78 & 79 Series	1/9	3/3	2/3.3	3/9.5	2/6	4/3	2/9	5/4	3/2.5	6/0
Noble <sup>1</sup> (New)	11	19	14	22	16	25	17	28	19	31
White Planter	11	19	14	22	16	25	17	28	19	31
International Harvester <sup>5</sup>	1/9	3/3	2/3.3	3/9.5	2/6	4/3	2/9	5/4	3/2.5	6/0
Buffalo All-Flex <sup>6</sup> (Fleischer Mfg.)	4 7/8	10	4 7/8	10	4 7/8	10	-	-	-	-

<sup>1</sup>Gauge setting.  
<sup>2</sup>Gauge setting with range 1 & 2 - number is range/notch.  
<sup>3</sup>An application rate of 16 ozs. per 1,000 feet of row is not attainable with this equipment.  
<sup>4</sup>Gauge setting is constant regardless of speed.  
<sup>5</sup>Gauge setting shown with stem gates & dial settings - number shown is gate/dial.  
<sup>6</sup>Number of turns open on the adjustment nut.

**USE SITES**

**ALFALFA (MO. Only)**

**Worker Restricted Entry Interval:** Do not enter or allow worker entry into treated areas during the REI of 24 hours until PPE required for early entry is worn.

Apply this product at planting as an in-furrow treatment for suppression of target pests during establishment. Direct granules into the planter shoe with the seed, then place the applicator tube directly behind the planter shoe so that granules drop into seed furrow. Alternatively, place the granular band applicator behind planter shoe so granules fall on soil surface and into the open seed furrow and are covered with soil.

Pest(s)	This Product (Lbs. per Acre)
Cutworms, Grubs, Wireworms	6.6
<b>USE PRECAUTIONS AND RESTRICTIONS:</b> Do not cut or graze treated Alfalfa within 21 days after application. Maximum single application rate is 1 pound chlorpyrifos a.i. (6.6 lbs. of this product) per acre. Do not apply more than one application of this product per year.	



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**ASPARAGUS\***

**Worker Restricted Entry Interval:** Do not enter or allow worker entry into treated areas during the REI of 24 hours unless PPE required for early entry is worn.

Apply this product as a post-harvest ground application for suppression of target pests. Apply as a band over the entire crown area when Asparagus beds have been split (i.e. remove most of the soil from above the crowns). Cover area with soil the day of application. **NOTE:** Control may be reduced in soils with high organic matter content. \*For Use only in the Midwest and Pacific Northwest states.

Pest(s)	This Product (Lbs. per Acre)
Symphylans	10
<b>USE PRECAUTIONS AND RESTRICTIONS:</b> Do not apply within 180 days of harvest. Do not apply more than 3 pounds chlorpyrifos a.i. (20 lbs. of this product) per acre between harvests.	

**CITRUS ORCHARD FLOORS**

**Worker Restricted Entry Interval:** Do not enter or allow worker entry into treated areas during the REI of 5 days unless PPE required for early entry is worn.

Apply this product with ground application equipment to control foraging Ants (except Fire ants, Carpenter, Harvester and Pharaoh ants) and suppress mounds. Use a suitable granular applicator, such as a cyclone fertilizer spreader, that uniformly broadcasts the granules over the orchard floor. This product may be custom-blended with granular fertilizers provided that the blended mixture can be uniformly applied to the orchard floor. Do not apply where weeds grow or other obstructions that may impede uniform coverage of the orchard floor. Foliar applications of Chlorpyrifos 4E-AG may be made in addition to orchard floor treatments of this product (see "USE PRECAUTIONS AND RESTRICTIONS").

Pest(s)	This Product (Lbs. per Acre)
Ants (except Fire ants, Carpenter, Harvester and Pharaoh ants)	6.6
<b>USE PRECAUTIONS AND RESTRICTIONS:</b>	
<ul style="list-style-type: none"> <li>• Do not allow meat or dairy animals to graze in treated areas.</li> <li>• Do not apply within 28 before harvest.</li> <li>• Do not apply more than 3 pounds chlorpyrifos a.i. (20 lbs. of this this product) per acre per year.</li> <li>• Do not make more than 3 applications of this product or other products containing chlorpyrifos per year (does not include foliar applications to Citrus trees).</li> <li>• Do not make a second application within 10 days of any chlorpyrifos application to the orchard.</li> <li>• Do not apply more than 1 pound active ingredient chlorpyrifos (6.6 lbs. of this product) in a single application.</li> </ul>	

**COLE CROP (Brassica) LEAFY VEGETABLES\*, RADISH, RUTABAGA AND TURNIP**

(\*Bok choy, Broccoli, Broccoli raab, Brussels sprout, Cabbage, Cauliflower, Chinese broccoli, Chinese cabbage, Collards, Kale and Kohlrabi)

**Worker Restricted Entry Interval:** Do not enter or allow worker entry into treated areas during the REI of 24 hours (3 days for Cauliflower) unless PPE required for early entry is worn.

For direct-seeded and transplanted crops, apply this product as an at-plant T-band as a 4-inch wide band centered over the row. This application requires a spreader or splitter on the end of the applicator drop tube. Placement behind the planter shoe and in front of the press wheel is recommended.

Crop / PHI* (days)	Pest(s)	This Product (Ounces per 1,000 ft. of row)	Maximum Single Application per Acre per Season** (Ounces of This Product)		Maximum No. of Applications per Season
			40" Row	20" Row	
Rutabaga (7) Cauliflower (21) Broccoli, Brussels sprout, Cabbage, Chinese Cabbage (bok choy, napa), Collards, Kale, Kohlrabi and Turnip (30)	Root maggot	4.6 to 9.3	7.5	15	1

\* Preharvest interval = Number of days between last application and harvest of treated crop.  
 \*\* Use proportionate amount of this product for other row spacings not to exceed 2.25 pounds chlorpyrifos a.i. (15 lbs. of this product) per acre per season.

**Radish**

Apply as an at-plant in-furrow treatment. Place granules in seed furrow with seed at time of planting.

Crop / PHI* (days)	Pest(s)	This Product (Ounces per 1,000 ft. of row)	Maximum Single Application Rate per Acre per Season** (Lbs. of This Product)	Maximum No. of Applications per Season
Radish (7)	Root maggot	3.3	18.3 (2.75 lbs. a.i./A)	1

\* Preharvest interval = Number of days between last application and harvest of treated crop.  
 \*\* Use Precaution and Restriction: The maximum single application rate is 0.5 ounce chlorpyrifos a.i. (3.3 ozs. of this product) per 1,000 feet of row.

**CORN (Field, Sweet, Corn Grown for Seed)**

**Worker Restricted Entry Interval:** Do not enter or allow worker entry in treated areas during the REI of 24 hours unless PPE required for early entry is worn.

This product is compatible with all ALS inhibitor herbicides applied in accordance with label recommendations. Refer to product labels for additional precautions and directions for use.

**At-Plant T-Band Application**

Apply 8 ounces of this product per 1,000 feet of row as a T-band over an open seed furrow over the row behind the planter shoe, in front of the press wheel. In conventional and minimum-till corn, incorporate into the top one-half to one inch of soil using suitable equipment. A soil applied T-band treatment may be followed by post-applied herbicides such as Callisto. This product has demonstrated suppression of certain soil-borne pathogens that may result in physiological and agronomic advantages to Corn under environmental stress conditions when compared to Corn not treated with this product.

**At-Plant In-Furrow Application**

Apply 8 ounces of this product per 1,000 feet of row at planting as an in-furrow treatment in conventional, minimum-till and no-till Corn. Direct granules into the planter shoe with seed, or place applicator tube directly behind planter shoe so that granules drop into seed furrow, or place granular band applicator behind planter shoe so that granules fall on soil surface and into the open seed furrow and are covered with soil.

**Post-Plant Application**

To control Corn rootworm larvae, apply 8 ounces of this product per 1,000 feet of row at cultivation by placing granules at the base of the plant on both sides of the row just ahead of the cultivation shovels and covering the granules with soil. To control European or Southwestern corn borer larvae, apply this product in a band

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over the row so that granules are directed into the whorl, or use a post-plant broadcast treatment. Consult our State Agricultural Experiment Station or Extension Service Specialist for proper time to treat and threshold information. Scouting for insect damage is strongly encouraged.

**Post-Plant Broadcast Application**

To control European or Southwestern corn borers, apply this product by uniformly broadcasting granules over Corn plants by aerial application. For aerial applications, do not apply within 150 feet of Rivers, Natural ponds, Lakes, Streams, Reservoirs, Marshes, Estuaries, and Commercial fish ponds. Apply 5 pounds of this product per acre for low to moderate first generation infestations and 6.5 pounds of this product per acre for severe first generation infestations and all second generation infestations. Apply before larvae have entered stalks. Consult your State Agricultural Experiment Station or Extension Service for local threshold information. Scouting for insect damage is strongly encouraged.

Pest(s)	Banded/In-Furrow Applications (Ounces per 1,000 ft. of Row)			Aerial Broadcast Application (Lbs. per Acre)
	At-Plant		Post-Plant	
	T-Band	In-Furrow		
Ants <sup>1</sup>	8	8	-	-
Armyworms	-	-	6 to 8	-
Billbugs	8	-	-	-
Chinchbugs <sup>1</sup>	8	8	-	-
Cutworms <sup>1</sup>	8	8	-	-
European and Southwestern corn borers <sup>2</sup> :				
1st Generation	-	-	3.5 to 8	5 to 6.5
2nd Generation	-	-	6 to 8	6.5
Grubs	8	8	-	-
Lesser corn stalk borers	8	-	-	-
Northern and Western corn rootworm larvae	8	8	8	-
Seed corn beetles	8	8	-	-
Seed corn maggots	8	8	-	-
Southern corn rootworm larvae	8	8	8	-
Symphylans	8	-	-	-
Wireworms <sup>3</sup>	8	8	-	-

**SPECIFIC DIRECTIONS:**

<sup>1</sup> The 8 ounces application rate provides suppression for in-furrow treatment only of Ants (except Fire ants, Harvester and Pharaoh ants), Chinchbugs and Cutworms.

<sup>2</sup> Use 3.5 to 4 ounces of this product per 1,000 feet of row for low to moderate first generation infestations of European corn borer before larvae have entered stalks when using post-plant banded applications. For severe first generation and all second generation infestations, use 6 to 8 ounces of this product per 1,000 feet of row. Apply before larvae have entered corn stalks.

<sup>3</sup> With T-band applications for Wireworm control, consider using a hopper box insecticidal seed treatment. For best control, apply as an in-furrow treatment.

**USE PRECAUTIONS AND RESTRICTIONS:**

- Do not apply within 21 days of harvest of grain or ears.
- Do not apply by aircraft at a rate greater than 1 pound chlorpyrifos a.i. (6.6 lbs. of this product) per acre.
- Do not make more than 3 applications of any product containing chlorpyrifos per season, including the maximum allowed of 2 granular applications, at the 1 pound chlorpyrifos a.i. rate. Retreatment with a second soil application of this product is allowed under replant situations due to loss of crop during establishment only when initially applied at the rate of 1 pound chlorpyrifos a.i.
- Do not apply more than 3 pound chlorpyrifos a.i. per acre per season.
- Do not make a second application of this product or other products containing chlorpyrifos within 10 days of the first application.
- Maximum single application rate for at-plant applications is 1.3 pounds chlorpyrifos a.i. per acre (8 ounces of this product per 1,000 feet of row).
- Maximum single application rate for post-plant application is 1 pound chlorpyrifos a.i. (6.6 lbs. of this product) per acre.
- If more than 1 pound granular chlorpyrifos a.i. per acre is applied at-plant (for a maximum of 1.3 pounds chlorpyrifos a.i. per acre per season), only 1 additional application of a liquid product containing chlorpyrifos a.i. per acre is allowed per season, for a total of 2.3 pounds chlorpyrifos a.i. per acre per season.

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**ONIONS (Dry Bulb)**

**Worker Restricted Entry Interval:** Do not enter or allow worker entry in treated areas during the REI of 24 hours unless PPE required for early entry is worn.

Apply as an at-plant in-furrow treatment.

Pest(s)	This Product (Ounces per 1,000 ft. of Row)	
	At-Plant	Post-Plant
Onion maggots		3.7
<b>SPECIFIC DIRECTIONS:</b> In CA, ID, WA and OR: To control maggots in Onions planted in double rows with rows spaced 2 to 4 inches apart, apply 3.7 ounces of this product per 1,000 feet of double row. Place granules in a 5- to 7-inch wide band over both rows behind the planter shoe and in front of the press wheel to achieve shallow incorporation. <b>USE PRECAUTIONS AND RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• Do not apply within 60 days before harvest.</li> <li>• Do not apply more than 1 pound chlorpyrifos a.i. (6.6 lbs. of this product) per acre per season.</li> <li>• The maximum single application rate is 0.56 ounce chlorpyrifos a.i. (3.7 ounces of this product) per 1,000 feet of row.</li> <li>• Do not make more than 1 application of this product or other products containing chlorpyrifos.</li> </ul>		

**PEANUTS**

**Worker Restricted Entry Interval:** Do not enter or allow worker entry in treated areas during the REI of 24 hours unless PPE required for early entry is worn.

**At-Plant Preventive Application**

Apply this product in a 6- to 12-inch band over the row behind the planter shoe and in front of the press wheel. Incorporate granules to a depth of 1 inch with tines, chains, or other suitable equipment. If 7.5 ounces is applied at the time of planting, an additional application at post-plant of 7.5 ounces per 1,000 feet of row should be made to extend control.

**Post-Plant Preventive Application**

Apply this product at early flowering to pegging stage of growth in a 6- to 8-inch band over the row. For extended insect control and continued suppression of white mold (Southern blight), a second application of this product may be made (see "USE PRECAUTIONS AND RESTRICTIONS").

**Band Rescue Application**

Apply this product in a 10- to 18-inch band over the fruiting zone.

Pest(s)	Banded Application (Ounces per 1,000 ft. of Row)	
	At-Plant	Post-Plant
<b>Preventive Application:</b> Cutworms, Lesser cornstalk borer, Southern corn rootworm larvae, Wireworms, White mold (Southern blight) <sup>1</sup>	7.5 to 15	7.5 to 15
Potato leafhopper	-	15
<b>Rescue Application:</b> Lesser corn stalk borer <sup>2</sup>	-	7.5 to 15
<b>SPECIFIC DIRECTIONS:</b> <sup>1</sup> For optimum suppression of White mold (Southern blight), apply 15 ounces of this product per 1,000 feet of row. Irrigation or rain following application is required to enhance treatment effectiveness. Under conditions of heavy White mold pressure, a suitable fungicide may also be required and must be applied separately. <sup>2</sup> For control of Lesser cornstalk borer, use this product as a rescue treatment when the insect first appears, usually just before or at pegging stage of development.		

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**USE PRECAUTIONS AND RESTRICTIONS:**

- Do not apply within 21 days before harvest.
- Do not feed treated Peanut forage or hay to meat or dairy animals.
- Do not apply more than 15 ounces of this product per 1,000 feet of row per crop season or apply more than 4 pounds chlorpyrifos a.i. (26.6 lbs. of this product) per acre per season.
- Do not make more than 2 applications of this product per year.
- Do not make a second application of this product or any product containing chlorpyrifos within 10 days of first application.
- The combined total of pre-plant and post-plant applications of this product and Chlorpyrifos 4E-AG or other products containing chlorpyrifos must not exceed 4 pounds chlorpyrifos a.i. per acre per season.
- Aerial application is prohibited.

**SORGHUM (Grain Sorghum - Milo)**

**Worker Restricted Entry Interval:** Do not enter or allow worker entry in treated areas during the REI of 24 hours unless PPE required for early entry is worn.

Use this product as an at-plant T-band treatment in a 6- to 8-inch band over open seed furrow in front of press wheel into the top one-half to 1 inch of soil. Application rates of this product per acre for various row spacings are given in the "Rates of Application per 1,000 Feet of Row and Equivalent Acreage at Different Row Spacings" table.

Pest(s)	At-Plant T-Band Application (Ounces per 1,000 ft. of Row)
Lesser corn stalk borer	4 to 8
Ants <sup>1</sup> , Chinchbugs <sup>1</sup>	8
Corn rootworm, Cutworm	8

**SPECIFIC DIRECTIONS:**

<sup>1</sup> For suppression of Chinchbugs and Ants (except Fire ants, Harvester and Pharaoh ants), use 8 ounces of this product alone.

**USE PRECAUTIONS AND RESTRICTIONS:**

- Do not make more than one application of this product per season.
- The maximum single application rate per 1,000 feet of row is 1.3 pounds chlorpyrifos a.i. in 30-inch row spacings (8 ounces of this product). Proportional amounts for other row spacings should not exceed 1.5 chlorpyrifos a.i. per acre.
- Do not make a foliar application of Chlorpyrifos 4E-AG or any other product containing chlorpyrifos within 10 days of an at-plant application of this product.

**SOYBEANS**

**Worker Restricted Entry Interval:** Do not enter or allow worker entry in treated areas during the REI of 24 hours unless PPE required for early entry is worn.

Use this product as an at-plant T-band treatment in a 4- to 10-inch band over an open seed furrow in front of press wheel and incorporate in to the top one-half to 1 inch of soil. For post-plant applications, incorporate granules in a 4- to 10-inch band to a depth of one-half to 1 inch using a suitable cultivator. Apply this product with equipment that will provide uniform distribution of granules over the row. Application rates of this product per acre for various row spacings are given in the "Rates of Application per 1,000 Feet of Row and Equivalent Acreage at Different Row Spacings" table.

Pest(s)	Banded Application (Ounces per 1,000 ft. of Row)	
	At-Plant T-Band	Post-Plant
Ants* (suppression only)	8	-
Cutworm, Lesser cornstalk borer	8	8

**USE PRECAUTIONS AND RESTRICTIONS:**

- Do not apply within 28 days of harvest.
- Do not apply as an in-furrow treatment.
- Do not make more than one application of this product and two additional applications per year of Chlorpyrifos 4E-AG or other liquid products containing chlorpyrifos.
- The maximum single application per 1,000 feet of row is 1.2 ounces chlorpyrifos a.i. (8 ounces of this product).
- Do not make a foliar application of Chlorpyrifos 4E-AG or other products containing chlorpyrifos within an at-plant application of this product.
- Do not apply more than 2 pounds chlorpyrifos a.i. (13.3 lbs. of this product) per acre for pre-plant/at-plant incorporation and 1 pound chlorpyrifos a.i. (6.6 lbs. of this product) per acre for foliar and post-harvest applications.
- \*Except Fire ants, Harvester and Pharaoh ants.

**SUGARBEETS**

**Worker Restricted Entry Interval:** Do not enter or allow worker entry in treated areas during the REI of 24 hours unless PPE required for early entry is worn.

**At-Plant T-Band Application**

Use this product in a band 4- to 5-inches wide behind the planter shoe, over the drill row, and in front of press wheel. DO NOT APPLY GRANULES IN DIRECT CONTACT WITH SEEDS. Apply 4.5 to 9 ounces of this product per 1,000 feet of row (equivalent to 6.7 to 13.4 pounds of this product per acre for 22-inch row spacings). Incorporate granules into the top one-half to 1 inch of soil using suitable equipment.

**Post-Emergence Band Application**

Apply this product in a 3- to 5-inch wide band over beet row (up to 2- to 4-true leaf stage of development). Apply 6.5 to 9 ounces of this product per 1,000 feet of row (equivalent to 10 to 13.5 pounds of this product per acre for 22-inch row spacings). Incorporate into the top one-half to 1 inch of soil using suitable equipment.

Pest(s)	Banded Application (Ounces per 1,000 ft. of Row)	
	At-Plant T-Band	Post-Plant
Cutworm	6.6 to 9	-
Sugarbeet root maggot <sup>1</sup>	4.5 to 9	6.5 to 9
Wireworms (suppression only)	6.5 to 9	-

**SPECIFIC DIRECTIONS:**  
<sup>1</sup> Apply 4.5 ounces of this product per 1,000 feet of row (equivalent to 6.75 pounds of this product per acre for 22-inch spacings) when populations of Sugarbeet root maggot are expected to be low. If initial adult fly activity indicates higher than anticipated populations, apply Chlorpyrifos 4E-AG at or near the time of peak adult emergence to augment control.

**USE PRECAUTIONS AND RESTRICTIONS:**

- Granular insecticides, including this product, may contribute to the stress of Sugarbeet plants under certain environmental conditions. Such stress may reduce plant stand or interfere with normal plant development. Herbicides used during pre-plant incorporation may interact with insecticides and enhance this stress.
- Do not apply within 30 days of harvest.
- Do not make more than one application of this product per season or apply more than 2 pounds chlorpyrifos a.i. per acre per season.
- Do not apply more than a total of 3 pounds chlorpyrifos a.i. (20 lbs. of this product) per acre per year, or make more than 3 applications of products containing chlorpyrifos per season.
- Do not make a foliar application of Chlorpyrifos 4E-AG or other products containing chlorpyrifos within 10 days of an at-plant application of this product.
- The maximum single application rate is 1.35 ounces chlorpyrifos a.i. (9 ounces of this product) per 1,000 feet of row or 2 pounds chlorpyrifos a.i. (13.3 lbs. of this product) per acre for 22-inch spacings.

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### SUNFLOWER

**Worker Restricted Entry Interval:** Do not enter or allow worker entry in treated areas during the REI of 24 hours unless PPE required for early entry is worn.

Use this product as an at-plant T-band treatment. Place granules in a band 7 inches wide over the row behind the planter shoe in front of press wheel and incorporate into the top 1 inch of soil using suitable equipment.

Pest(s)	This Product (Ounces per 1,000 ft. of Row)
Cutworm	8

**USE PRECAUTIONS AND RESTRICTIONS:**

- Do not apply within 42 days of harvest.
- Do not make more than one application of this product and two additional applications per year of Chlorpyrifos 4E-AG or other liquid products containing chlorpyrifos.
- Do not make a foliar application of Chlorpyrifos 4E-AG or other products containing chlorpyrifos within 10 days of an at-plant application of this product.
- The maximum single application rate is 1.25 ounces chlorpyrifos a.i. (8.3 ozs. of this product) per 1,000 feet of row or 1.3 pounds chlorpyrifos a.i. (8.6 lbs. of this product) per acre per 30-inch spacings.
- Do not apply more than 2 pounds chlorpyrifos a.i. (13.3 lbs. of this product) per acre for pre-plant/at-plant incorporation and 1 pound chlorpyrifos a.i. (6.6 lbs. of this product) per acre for foliar and post-harvest applications.

### SWEET-POTATO

**Worker Restricted Entry Interval:** Do not enter or allow worker entry in treated areas during the REI of 24 hours unless PPE required for early entry is worn.

Use this product as a pre-plant broadcast treatment by evenly distributing the granules over the soil surface, then incorporate granules into 2 to 4 inches of soil using a rotary hoe, disc cultivator or other suitable equipment. Plant Sweet potatoes no later than 14 days after application. Delaying planting will reduce the length of time this product can protect crop against feeding damage. This product will not control False wireworm, Whitefringed beetle or other Grubs that attack Sweet potatoes.

Pest(s)	This Product (Lbs. per Acre)
Flea beetle ( <i>Systema</i> ), Sweet potato flea beetle, Wireworm ( <i>Conoderus</i> )	13.3

**USE PRECAUTIONS AND RESTRICTIONS:**

- Do not apply within 125 days of harvest.
- Do not make more than one application of this product or other products containing chlorpyrifos per season.
- The maximum single application rate is 2 pounds chlorpyrifos a.i. (13.3 lbs. of this product) per acre

### TOBACCO

**Worker Restricted Entry Interval:** Do not enter or allow worker entry in treated areas during the REI of 24 hours unless PPE required for early entry is worn.

This product may be used as a pre-plant broadcast treatment one week before transplanting. Use equipment that evenly distributes granules over treated area. Incorporate granules 2 to 4 inches into the soil using suitable equipment immediately following application. Application of this product also suppresses imported fire ant movement into a treated field.

Pest(s)	This Product (Lbs. per Acre)
Ants (suppression)*, Cutworms, Flea beetles, Mole crickets, Root maggots, Wireworms	13.3

**USE PRECAUTIONS AND RESTRICTIONS:**

- Do not apply within 7 days of harvest.
- Do not make more than one application of this product or other products containing chlorpyrifos per season.
- The maximum single application rate is 2 pounds chlorpyrifos a.i. (13.3 lbs. of this product) per acre.
- \* Except Fire ants, Harvester and Pharaoh ants.

### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in a cool, dry place.

**PESTICIDE DISPOSAL:** Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:**

**Nonrefillable Container (flexible-bag-all weights):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**Nonrefillable Container (rigid-fifty lbs. or less):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container one-fourth 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. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**Nonrefillable Container (rigid-greater than fifty lbs.):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container one-fourth 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. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**Refillable Container:** Refillable container. Refill this container with this product 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 from this container into application equipment or mix tank. Fill the container about 10 percent 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.

### WARRANTY-CONDITIONS OF SALE

OUR DIRECTIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the Seller. To the extent consistent with applicable law, Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith. To the extent consistent with applicable law, in no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by the Seller and is accepted as such by the Buyer.

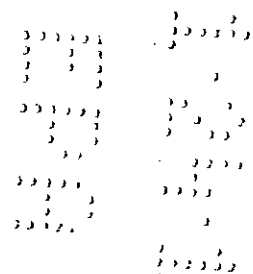
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**Drexel Chemical Company**

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