

Reg # 19713-301

PM-23

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

APR 15 1994

Barbara Brown
DREXEL CHEMICAL CO
BOX 9306
MEMPHIS, TN 38109

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Subject: Label Amendment Submission of 11/10/93 in Response to PR Notice 93-7
EPA Reg. No. 19713-301
WESLEY COPPER HYDROXIDE

Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is accepted subject to the comments reflected on the enclosed sheet. A copy of your proposed labeling stamped "ACCEPTED WITH COMMENTS" is enclosed.

WHAT THIS ACCEPTANCE MEANS:

Based on your certification, the Agency has accepted the labeling changes that are necessary to comply with the Worker Protection Standard (WPS) labeling requirements of 40 CFR part 156, subpart K, described in PR Notices 93-7 and 93-11. Any other labeling changes submitted in connection with this amendment application but not directly related to compliance with the WPS have not been reviewed or accepted by the Agency. If you wish to make such changes, you must submit a separate amendment application proposing them. If your product is currently suspended, the acceptance of this labeling amendment does not affect the suspension in any way.

WHAT YOU NEED TO DO NEXT:

By the next label printing make all the specified changes to your labeling. Send to EPA one (1) copy of the final printed labeling:

- BEFORE selling or distributing any product bearing the final printed labeling
- AND
- WITHIN one year from date of this acceptance.



Recycled/Recyclable
Printed with Soy/Canola ink on paper that
contains at least 50% recycled fiber

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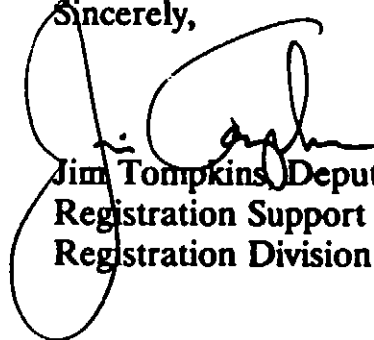
Submit the final printed labeling via the U.S. Postal Service to:

Document Processing Desk (FIN-LABEL)
Office of Pesticide Programs (7505C)
U.S. Environmental Protection Agency
401 M Street, SW
Washington, D.C. 20460-0001

Hand or courier deliveries of final printed labeling may be made to:

Document Processing Desk (FIN-LABEL)
Office of Pesticide Programs
Room 266A, Crystal Mall 2
1921 Jefferson Davis Highway
Arlington, VA 22202

Sincerely,



Jim Tompkins, Deputy Chief
Registration Support Branch
Registration Division (7505W)

Attachment

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DREXEL CHEMICAL CO
19713-301 11/10/93
WESLEY COPPER HYDROXIDE
Original Submission

The following statement on your proposed label is not required for this product: "Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate." You may delete it or leave it on the label.

Add the following User Safety Recommendation to the label in the location shown in Section A on Part I of the Product Worksheet in Supplement Three-A to PR Notice 93-7: "Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

Remove the statement "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." from its current position within the Agricultural Use Box and place it above the Agricultural Use Box.

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KOP-HYDROXIDE
A FLOWABLE FUNGICIDE

ACTIVE INGREDIENT:
Cupric Hydroxide.....37.5%
INERT INGREDIENTS.....62.5%
TOTAL.....100.0%
(METALLIC COPPER EQUIVALENT - 24.4%)

KEEP OUT OF REACH OF CHILDREN
CAUTION

EPA Reg. No. 19713- 301
EPA Est. No. 19713-GA-01

NET CONTENTS:

DREXEL CHEMICAL COMPANY
P.O. BOX 9306
MEMPHIS, TN 38109

STATEMENT OF PRACTICAL TREATMENT
IF SWALLOWED: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching the 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. Get medical attention if irritation persists.
IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.
IF IN EYES: Flush with plenty of water. Call a physician.

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ACCEPTED
with COMMENTS
In EPA Letter Dated
APR 15 1994

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended for the pesticide
registered under EPA Reg. No.
19713-301

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PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed, inhaled or absorbed through the skin. Avoid breathing mist and contact with skin, eyes, or clothing. Wash-hands,-arms,-and-face-theroughly-with-soap-and warm-water-after-handling.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

Long-sleeved shirt and long pants

Waterproof gloves

Shoes plus socks

Protective eyewear

Dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C)

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENVIRONMENTAL HAZARDS

This product is toxic to fish. Do not apply directly to water. Do not contaminate water by cleaning of equipment or disposal of wastes. Do not apply when weather conditions favor drift from areas treated. Do not apply where a runoff is likely to occur. Apply this product only as specified on this label.

DIRECTIONS FOR USE

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

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

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AGRICULTURAL USE REQUIREMENTS

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

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.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Waterproof gloves
- Shoes plus socks
- Protective eyewear

Use KOP-HYDROXIDE as noted below. KOP-HYDROXIDE is adaptable to spraying from all types of spray equipment. Depending on the equipment used and the specific crop, the volume applied per acre will differ. For dilute, high volume sprays: use from 25 to 100 gallons of water per acre (GPA) for most vegetable crops, 400 to 800 GPA for fruit orchards and up to 1500 GPA as may be required for large citrus groves. For concentrate ground sprays, apply from 5 to 20 GPA for most vegetable crops and 25 to 100 GPA for fruit and nut crops. For aerial spraying, 3 to 15 GPA are commonly used. No additional surfactants are needed. Add KOP-HYDROXIDE slowly to a spray tank partially filled with water. Spreader-stickers, insecticides, nutrients, etc. should be added last. Observe all cautions and limitations on label of all products used in mixtures.

The following specific instructions are based on general applications.

The recommendations of the State Agricultural Extension Services should be closely followed as to timing, frequency and number of sprays per season.

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HOMEOWNER USE: 1 level teaspoon of KOP-HYDROXIDE per gallon of water is equivalent to 1 pint per 100 gallons. Make a application according to specific instructions given below for those crops where rates are given in pints/hundred gallons. (For example: 2 pints KOP-HYDROXIDE per 100 gallons are equivalent to 2 level teaspoons KOP-HYDROXIDE per gallon).

ALFALFA, Cercospora & Leptosphaerulina Leaf Spots. Apply at 2 2/3 pts/A 10-14 days before each harvest or earlier if disease threatens. Apply with ground or aerial equipment. Spray injury may occur with sensitive varieties such as Lahontan.

ALMONDS, Coryneum Blight (Shot Hole) & Blossom Brown Rot. Use 2 2/3 to 4 pints KOP-HYDROXIDE per 100 gallons of water (300 to 400 GPA) in late dormant before foliage buds swell if frequent rainfall occurs. A second application should be made during the early bloom stage (popcorn).

To avoid plant injury, do not use above rate after full bloom. Bacterial Blast (Pseudomonas). Use 4 to 5 1/3 pints KOP-HYDROXIDE per 100 gallons at dormant to early pink bud. For blast control in sprinkler irrigated orchards or where disease is severe, apply 2-4 KOP-HYDROXIDE sprays at 1/3 pint per 100 gallons at 2-week post-bloom intervals or just before sprinkling. Slight leaf injury may occur from post-bloom spray.

APPLE, Anthracnose, European Canker, Pseudomonas, Syringae. Apply before fall rains at 4 to 5 1/3 pints per 100 gallons (300-400 GPA). Use on yellow varieties may cause discoloration. To avoid, pick before spraying. Fireblight - Apply at 2 2/3 to 5 1/3 pints per 100 gallons of water as a full cover spray. Make application between silver tip and green-tip. CAUTION: Phytotoxicity may occur from late application. (Discontinue use when green-tip is 1/2 inch) Crown or Collar Rot (Phytophthora cactorum). Mix 5 1/3 pints in 100 gallons of water.

Apply 4 gallons of suspension as a drench on the lower trunk area of each tree. Apply either in early spring or in fall after harvest each year. Do not use if soil pH is below 5.5 or copper toxicity may result. (EXCEPT CALIFORNIA).

APRICOTS, Coryneum Blight (Shot Hole) & Blossom Brown Rot. Apply at popcorn to full bloom using 2 2/3 to 4 pints per 100 gallons (300-400 GPA).

To avoid spray injury, do not apply after bloom.

AVOCADOS, Scab. Apply when bloom buds begin to swell at 2 2/3 pints KOP-HYDROXIDE per 100 gallons or 10 2/3 to 13 1/3 pts/A depending on equipment. Continue application at monthly intervals for 5 to 6 applications. Follow recommendations of State Agricultural Experiment Stations.

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BANANAS, Sigatoka. Apply by air at 2 2/3 pts/A in 3 gallons of water containing 0.5 gallon agricultural oil. Apply on a 14-day schedule throughout the wet season. Apply at 21-day intervals during dry periods. Black Pitting - Apply at 5 1/3 pints per 100 gallons directly to the fruit stem and include the basal portion of the leaf crown. Apply during the first and second weeks after emergence.

BEANS, Bacterial Blight (Halo & Common). For protective sprays, apply first application when plants are six inches high. Apply on 7-14 day schedule depending on local conditions. Use 1 1/3 to 4 pts/A, depending on disease severity.

BLACKBERRIES, (Santiams, Logans, Boysens, Marions, Auroras, Cascades, Chehalems & Thornless Evergreens). Leaf & Cane Spot. Apply delayed dormant spray after training in spring at 5 1/3 pints plus 1 quart superior-type oil per 100 gallons. Make full spray application after harvest using 5 1/3 pints plus 1 quart superior-type oil per 100 gallons.

BROCCOLI, BRUSSELS SPROUTS, CABBAGE & CAULIFLOWER, Downey Mildew. Apply 2/3 to 1 1/3 pints in a minimum of 25 GPA at 7-day intervals. (CABBAGE ONLY). Black Rot (Xanthomonas) & Black Leaf Spot (Alternaria). Apply at 2 2/3 pts/A in a minimum of 25 GPA at 7-to 10 day intervals. (Caution: A slight reddening of older leaves may occur on broccoli, and a slight flecking of wrapper leaves may occur on cabbage at the 2 2/3 pints rate). For control of diseases of these crops, begin applications after transplants are set in the field, or shortly after emergence of field-seeded crops or when conditions favor disease development.

CACAO, Black Pod. Begin applications at the start of the rainy season and continue while infection conditions persist. Sprays should be made as often as 14 to 21 days in high rainfall areas at varying rates from 2 2/3 to 6 pts/A, depending on disease severity. For drier areas, where 2 to 4 applications are recommended during critical infection periods and at long intervals, use 8 2/3 to 11 1/3 pts/A, according to disease incidence and planting density.

CANTALOUPE, HONEYDEWS & MUSKMELONS, Downy Mildew. Apply weekly at 2 2/3 pts/A before disease appears.

CARROTS, Carrot Blight (Cercospora). When disease threatens, apply 2 2/3 pts/A at 7-to 14-day intervals, depending on disease severity.

CELERY, Early, Late 7 Bacterial Blights. Apply as soon as plants are first established in the field at 2 2/3 pts/A, then every 5-7 days depending on severity and weather. One to two quarts of a suitable agricultural spray oil per acre may be used as spreader-sticker.

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CHERRY, Dead Bud (*Pseudomonas syringae*) & Coryneum Blight (Shot Hole). Apply 8 pints plus 1 pint superior-type oil per 100 gallons in October (before heavy fall rains) and again in January. In orchards where the disease is severe, a spray should also be applied in August. Brown Rot Blossom Blight. For adequate control apply 2 2/3 to 4 pints per 100 gallons as a full cover spray at popcorn and full bloom.

CITRUS, Melanose, Scab, Greasy Spot & Pink Pitting. Apply as pre-bloom and post bloom sprays. Use 1 to 2 pints KOP-HYDROXIDE per 100 gallons, depending on disease severity. May be used in concentrate sprays at equivalent rates. For aerial application, use 8 pints KOP-HYDROXIDE per 10 gallons per acre. Brown Rot. Use 2/3 to 1/3 pints per 100 gallons as dilute spray or at equivalent rate as concentrate spray, depending on severity of disease. Begin application in fall before or just after first heavy rains. Apply to skirts of trees to a height of at least 4 feet. Apply also to bare ground one foot beyond skirt. (California only. In areas subject to copper injury, add 1/3 to 1 pound of high quality lime per 1 1/3 pints KOP-HYDROXIDE.

COFFEE, Iron Spot (*Cerospora coffeicola*) & Pink Disease (*Corticium salmonicolor*). Apply at 2 2/3 pts/A as a concentrate or dilute spray. Begin treatment at start of wet season and continue at monthly intervals for three applications. Leaf Rust. (Brazil). Apply 4 2/3 to 7 1/3 pts/A for average density plantations. High density plantations may require 9 1/3 to 10 2/3 pts/A. Make application from September to March depending on altitude and local recommendations. Apply 3-4 week intervals, depending on disease severity and rainfall conditions.

CRANBERRY, Fruit Rot. Apply at 10 2/3 pts/A beginning in late bloom. One or two additional applications made at 10- to 14-day intervals may be required, depending on disease pressure. Follow the advice of the State Agricultural Extension Service.

CUCUMBERS, Angular Leaf Spot & Downy Mildew. Apply weekly once the plants begin to vine. Use 2 to 2 2/3 pts/A.

CURRANTS & GOOSEBERRY, Leaf Spot. Make three applications KOP-HYDROXIDE at 13 1/3 pts/A, starting after harvest, before bloom and after petal fall.

EGGPLANT, *Alternaria* Blight, Anthracnose, *Phomopsis*. Use 2 2/3 pints KOP-HYDROXIDE per acre before disease appears. Repeat at 7 to 10 day intervals. (EXCEPT CALIFORNIA)

FILBERTS, Bacterial Blight. Apply 5 1/3 to 8 pints plus 1 pint superior-type oil per 100 gallons in late August or early September. In seasons of heavy rainfall, apply another spray when three-fourths of the leaves have dropped.

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GRAPES, Black Rot, Powdery Mildew & Downy Mildew. Apply 2 2/3 pints KOP-HYDROXIDE plus 2 to 6 pounds hydrated lime per acre as a dilute or concentrate spray. Use KOP-HYDROXIDE for the last one or two late summer applications following early season application of another fungicide. Follow State schedule for exact timing. (Caution: Slight to severe foliage injury may occur on copper-sensitive varieties such as Concord, Delaware, Niagara, and Rosette).

HOPS, Downy Mildew. Apply 2 2/3 pints as a fungicide crown treatment (after pruning, but before training) as needed. After training, additional fungicide treatments are needed at about 10-day intervals. Discontinue use 2 weeks before harvest.

LETTUCE, Downy Mildew. Apply 1 1/3 to 2 2/3 pints KOP-HYDROXIDE per acre. Begin treatment when disease first appears and repeat every 7-10 days as needed to suppress disease.

LIVE OAK, Ball Moss. (Texas only). Apply at 8 pints per 100 gallons of water, in spring after heavy rain, using 1.5 gallons of spray per foot of tree height. Make sure to wet tufts thoroughly. A second application may be required after 12 months.

MANGO, (Florida) Anthracnose. Apply monthly after fruit set until harvest at 2 2/3 pints KOP-HYDROXIDE per 100 gallons or 10 2/3 to 13 1/3 pts/A depending on equipment. Consult Extension Service for State recommendations.

OLIVES, (California) Peacock Spot. Make first application at 2 2/3 to 4 pints per 100 gallons or at 10 2/3 to 16 pts/A, depending on equipment, before winter rains fall. A second application in early spring should be made if disease is severe.

ONION, Purple Blotch & Downey Mildew. Apply 2 2/3 pints COPPER HYDROXIDE per acre when plants are 4 to 6 inches high and repeat at 7- to 10-day intervals.

PEACHES & NECTARINES, leaf Curl & Coryneum Blight (Shot Hole). Dormant application, apply at leaf fall. Dilute: Apply 2 2/3 to 5 1/3 pints per 100 gallons (minimum of 10 2/3 pints/acre). Use 21 1/3 pts/A when rainfall is very heavy and disease pressure is high. Concentrate: Apply at equivalent rates in approximately 100 gallons of water. may be used with agricultural spray oil. Brown Rot Blossom Blight. Apply at 2 2/3 to 4 pints per 100 gallons as full cover spray at pink bud. (Application at this time also affords some control of leaf curl and Coryneum Blight). Bacterial Spot. Dormant application, apply at 2 2/3 pints per 100 gallons. Postbloom, apply 1/3 pint per 100 gallons at first and second cover sprays. Do not spray later than three weeks prior to harvest. Do not use at rates above those recommended. (Caution: Slight defoliation and spotting of leaves may occur from use in cover sprays).

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PEANUTS, Cercospora Leaf Spot. Begin spraying 40-45 days after planting or when disease symptoms appear. Make ground or aerial application at 2 to 4 pts/A. For aerial application, use 3-10 gallons of water. Continue applications at 10-14 day intervals. Use sufficient water to get adequate coverage. KOP-HYDROXIDE may be tank-mixed with Flowable Sulfur Products.

PEARS, Fire Blight. Apply at 1/3 pint per 100 gallons or 1 1/3 pts/A at 5-day intervals throughout bloom period. Pseudomonas, Blight. Apply KOP-HYDROXIDE before fall rains at a rate of 4-5 1/3 pints per 100 gallons (300-400 GPA) and again at dormant before spring growth starts.

Excessive dosages may cause fruit russet.

PEAS, Powdery Mildew. Begin spray treatment when disease symptoms first appear. Use at 2 to 4 pts/A according to disease severity. Repeat applications at weekly intervals.

PEPPERS, Bacterial Spot. When disease threatens, apply 2 2/3 to 4 pts/A in sufficient water for adequate coverage at 7- to 14-day intervals, depending on disease severity.

PHILODENDRON, Bacterial Leaf Spot. Apply weekly before disease appears at 2 pints KOP-HYDROXIDE plus manufacturer's recommended amount of mancozeb per 100 gallons of water.

POTATOES, Early & Late Blight. Apply at 7-10 day intervals starting when plants are six inches high until two weeks before harvest. Use 1 1/3 to 2 pts/A in those locations where disease is light and up to 4 to 5 1/3 pts/A where disease is more severe.

PUMPKIN & SQUASH, Powdery Mildew. Begin applications when plants are 3 weeks old or when first disease symptoms appear. Use at weekly intervals at 2 to 4 pts/A, depending on disease severity.

STRAWBERRIES, Leaf Spot & Leaf Blight. Apply at 2 2/3 to 4 pints in 100 gallons per acre. Begin application when plants are established and continue on a weekly schedule throughout season. Discontinue applications if signs of phytotoxicity appear.

SUGAR BEETS, Cercospora Leaf Spot. Start spray when disease threatens and continue 4 to 5 applications. Spray at 10-14 day intervals, depending on weather conditions, at 2 2/3 to 6 2/3 pts/A, depending on disease severity. Addition of suitable agricultural spray oil is recommended at 2 quarts per acre.

SYCAMORE, Anthracnose. Make two applications using 2 2/3 to 4 pints per 100 gallons as a full cover spray. Make first application at bud crack and second application 7-14 days later at 10% leaf expansion.

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TOMATOES, Early Blight. When disease threatens, apply 2 2/3 to 4 pts/A at 7-10 day intervals. **Bacterial Speck.** Apply at 2 2/3 pts/A at 10-30 day intervals beginning when the disease threatens. Use more frequent applications when disease pressure is high. **Bacterial Spot.** When disease threatens, apply 2 2/3 to 5 1/3 pts/A at 7-10 day intervals, more frequently when disease is severe. **KOP-HYDROXIDE** may be combined with maneb or mancozeb. Do not apply within five days of harvest.

WALNUT, Walnut Blight. Apply first spray at early pre-bloom when catkins are partially expanded. Make three additional applications during bloom and early nutlet stages at 7-10 day intervals. Additional applications may be necessary when frequent rainfall occurs. Dilute: Apply 2 2/3 pints per 100 gallons water (minimum of 10 2/3 pts/A). Concentrate: Apply at equivalent rates in 50-100 gallons water per acre. One pint of summer oil emulsion may be added per 100 gallons of spray. Do not apply more than 16 2/3 pts/A per application.

WATERMELON, Anthracnose & Downy Mildew. Apply as soon as plants become established and at weekly intervals thereafter. **Anthracnose.** Use at 2 2/3 pts/A. **Downy Mildew.** Use at 2 to 4 pts/A, according to disease severity.

WHEAT & BARLEY, Septoria Leaf Blotch & Helminthosporum Spot Blotch. Apply 2 to 2 2/3 pts/A. Make first application at early boot stage and follow with second application at early head stage.

STORAGE AND DISPOSAL

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

STORAGE: Store unused product in original container only in cool, dry area out of reach of children and animals.

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

CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or dispose of in a sanitary landfill, or by incineration if allowed by state and local authorities.

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WARRANTY-CONDITION OF SALE:

DIRECTIONS FOR USE of this product are based on field use and tests believed reliable and should be followed carefully. It is, however, impossible to eliminate all risks associated with use of this product. Because such factors as weather conditions, foreign material and manner of use for application are all beyond the control of Drexel Chemical Company or the seller of this product, such things as crop injury, ineffectiveness or other unintended consequences may result. ALL SUCH RISKS ARE ASSUMED BY THE BUYER.

Drexel Chemical Company 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. Drexel Chemical Company makes no other warranties, expressed or implied, including FITNESS OR MERCHANTABILITY. In no case shall Drexel Chemical Company or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product. The foregoing is a condition of sale by Drexel Chemical Company and is accepted as such by the Buyer.

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