

81943-42

5/18/2010

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

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

Ms. Sherry B. Hutcheson
Product Registration
Phoenix Environmental Care, LLC
PO Box 370
Valdosta, GA 31603-0370

MAY 18 2010

SUBJECT: Application for Pesticide Notification (PRN 98-10)
Request General Label Change/Sublabel w/ Approved Text
EPA Reg. No. 81943-42
Application Dated April 15, 2010

Dear Registrant:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated 04/15/10 for the above product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action(s) requested fall within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, please call me directly at 703-305-6249 or Owen F. Beeder of my staff at 703-308-8899.

Sincerely,

A handwritten signature in black ink, appearing to read "Linda Arrington", is written over a horizontal line.

Linda Arrington
Notifications & Minor Formulations Team Leader
Registration Division (7505P)
Office of Pesticide Programs

20913



United States
Environmental Protection Agency
Washington, DC 20460

☐ Registration
☐ Amendment
☒ Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number 81943-42	2. EPA Product Manager PM# 22	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Cardinal		
5. Name and Address of Applicant (Include ZIP Code) Phoenix Environmental Care, LLC PO Box 370 Valdosta, GA 31603-0370 <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 _____	NOTIFICATION MAY 18 2010
<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.)

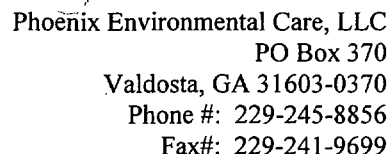
This label for Cardinal (81943-42) is being provided as a sublabel of the Master label on file with EPA.

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
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		<input checked="" 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 checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 2.5 gallon jug		5. Location of Label Directions <input type="checkbox"/> super booklet affixed to container	
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph Paper glued 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 Sherry B. Hutcheson	Title Director, Regulatory Affairs	Telephone No. (Include Area Code) 229-245-8856
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 Director, Regulatory Affairs	
4. Typed Name Sherry B. Hutcheson	5. Date 4/15/2010	



Document Processing Desk (NOTIF)
Office of Pesticide Programs (7504P)
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460-0001

Phoenix Environmental Care, LLC is submitting a notification for Cardinal (81943-42) that this label is being marketed as a turf, nursery and ornamental product and therefore we are submitting a sublabel. The sublabel contains approved limited labeling text that is contained in the Master label of Cardinal. No changes to the precautionary statements, use classification or packaging of the product has been made.

- EPA form 8570-1, application form
- A clearly marked copy noting this is a sublabel of the existing Master label limited to the turf, nursery and ornamental market with the removal of agricultural uses from this sublabel
- A clean copy of the sublabel.

Best regards,

Sheng B

Enclosures

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Sublabel of Cardinal EPA Reg. No. 81943-42
4/15/2010

CARDINAL
PLANT REGULATOR
For Commercial Use Only
Not for Residential Use

For use on Turf. Also, for the removal of Dwarf Mistletoe in Ornamental Conifers and Leafy Mistletoe in Ornamental Deciduous Trees and for the elimination of undesirable fruit on Ornamental Apple, Camellia, and other live trees.

NOTIFICATION

ACTIVE INGREDIENT:

MAY 18 2010

Ethephon [(2-chloroethyl) phosphonic acid]* 21.7%

OTHER INGREDIENTS: 78.3%

TOTAL: 100.0%

*Contains 2 pounds ethephon per gallon

KEEP OUT OF REACH OF CHILDREN
ANGER PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID	
IF IN EYES	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes then continue rinsing eyes. Call a poison control center or doctor for treatment advice
IF SWALLOWED	<ul style="list-style-type: none"> Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"> Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
IF INHALED	<ul style="list-style-type: none"> Move person to fresh air. If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably mouth to mouth. Call a poison control center or doctor for further treatment advice.
HOTLINE NUMBER	
EMERGENCY TELEPHONE NUMBERS: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE: Call PROSAR at 1-888-875-1724. FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accidents call CHEMTREC at 1-800-434-9300.	
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. Treat symptomatically, as there is no specific antidote. Additionally, patient may have been exposed to materials other than this product. This product is an acid; therefore, it is contraindicated to attempt to neutralize it with alkaline materials. Gastric lavage should be undertaken with care to victims of overexposure by ingestion, given the potential for esophageal or stomach perforation. Due to a potential for pulmonary edema, any patients that have had severe exposure to this product should be kept under medical observation for up to 72 hours.	

Phoenix Environmental Care, LLC
PO Box 370, Valdosta GA 31603-0370

Net Contents: _____

EPA Reg. No. 81943-42
EPA Reg. No. _____

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
DANGER

Causes irreversible eye damage and skin burns. Harmful if swallowed or absorbed through skin. Do not get in eyes on skin or on clothing. Avoid breathing spray mist. Avoid contamination of food.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category A on an EPA chemical-resistance chart.

Applicators and other handlers must wear:

- long-sleeved shirt and long pants,
- chemical resistant gloves made of any waterproof material such as polyvinyl chloride, nitrile rubber, or butyl rubber gloves,
- shoes plus socks and chemical resistant footwear,
- protective eyewear.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

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.

USER SAFETY REQUIREMENTS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash body thoroughly and put on clean clothing.
- As soon as possible, wash thoroughly and change into clean clothing. Wash the outside of gloves before removing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, or 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.

IMPORTANT: Use of Cardinal other than as described on this label is prohibited. Do not exceed the rate of Cardinal per acre per year allowed on this label.

DIRECTIONS FOR USE

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING. READ ENTIRE LABEL BEFORE USING THIS PRODUCT.

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 regulations.

Do not contaminate water used for irrigation or domestic purposes.

Detrimental changes to plant growth, reduced yields, and plant injury may result from spray drift of this product to nearby crops and thus should be avoided.

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Do not plant another crop within 30 days after treatment.
Do not apply Cardinal through any type of irrigation system.

SPRAY DRIFT

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 these factors when making decisions.

The following drift management requirements must be followed to avoid off-target movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed $\frac{3}{4}$ the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory below:

AERIAL DRIFT REDUCTION ADVISORY INFORMATION ON DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (See Wind, Temperature and Humidity, and Temperature Inversions).

CONTROLLING DROPLET SIZE

Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

Pressure - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of nozzles - Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.

Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

BOOM LENGTH

For some use patterns, reducing the effective boom length to less than $\frac{3}{4}$ of the wingspan or rotor length may further reduce drift without reducing swath width.

APPLICATION HEIGHT

Applications should not be made at a height greater than 10 feet above the top of the target plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

SWATH ADJUSTMENT

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator should compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

WIND

Drift potential is lowest between wind speeds of 2 - 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY

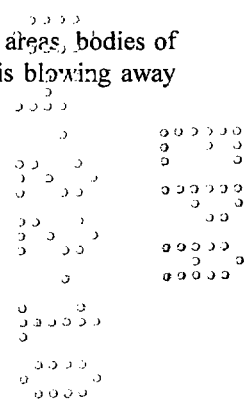
When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

TEMPERATURE INVERSIONS

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

SENSITIVE AREAS

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).



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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), notification to workers, and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours. The REI is 72 hours in areas where average rainfall is less than 25 inches per year.

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, chemical resistant gloves made of any waterproof material such as Nitrile or Butyl rubber, shoes plus socks, protective eyewear, 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.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store pesticide in original container. If container is broken or contents have spilled, follow all precautions as outlined above and clean up immediately. Before starting clean up, put on the appropriate protective clothing such as long pants or coveralls, long-sleeved shirt, appropriate footwear and gloves, and face shield or goggles if needed. Soak up spilled product with an appropriate media such as sand, earth, or clay cat litter and dispose of waste at an approved waste disposal facility.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use 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.

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ 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. Offer for recycling, if available 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.

This Product:

Eliminates leafy mistletoe from ORNAMENTAL DECIDUOUS TREES and dwarf mistletoe from ORNAMENTAL CONIFERS.

Removes unwanted fruit on APPLE, CRABAPPLE, CAROB, and OLIVE trees.

GENERAL INFORMATION

Contact your Extension Pomologist, Farm Advisor, Horticultural Specialist or Phoenix Environmental Care Representative for local requirements on product spray volume, spray equipment and rates of application for varying weather conditions.

APPLICATION VOLUMES AND SPRAY COVERAGE

For optimum product efficacy, thorough spray coverage is necessary. This can be influenced by type of spray equipment, spray boom setup, nozzle selection, plant size, canopy density and spray pressure. Depending on these choices, the necessary

4/15/2010

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Detrimental changes to plant growth, reduced yields, and plant injury may result from spray drift of this product to nearby crops and thus should be avoided. Do not plant another crop within 30 days after treatment.

This product is corrosive. Therefore, spills of concentrated product on the aircraft or other spray equipment should be avoided. Should such contact be made, immediately rinse with water.

EQUIPMENT CLEANING

This product is corrosive. As a result, spray deposit exposure will, over a period of time, damage metal, some paints and acrylic plastics. No more than one hour after exposure to spray deposits, these materials should be carefully rinsed with water and detergent.

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MISTLETOE REMOVAL

DWARF AND LEAFY MISTLETOE REMOVAL: A foliar spray of Cardinal will remove dwarf mistletoe shoots in ornamental conifers and leafy mistletoe from ornamental deciduous trees.

Crop Condition	Cardinal (Pints/Acre)	Instructions	Comments
DWARF MISTLETOE ON ORNAMENTAL CONIFERS	2 pints per 20 gallons	Apply as a foliar spray to dwarf mistletoe shoots before mistletoe seed dispersal. For effective removal, all mistletoe shoots must be sprayed to wet. Use of a nonionic surfactant at permitted rates may increase effectiveness. Treat any mistletoe regrowth before seed dispersal.	Applications made in conjunction with silvicultural mistletoe management will prevent spread of the mistletoe parasite to other parts of the tree and other trees.
DOUGLAS FIR, ORNAMENTALS	1 pint per 20 gallons		Mature needle drop, that normally occurs in the fall, may be hastened by the use of Cardinal. Applications of higher rates on Douglas fir may result in excessive needle drop.
LEAFY MISTLETOE ON ORNAMENTAL DECIDUOUS TREES	2 quarts per 20 gallons	Make applications after fall leaf drop through mid-winter. For effective removal, all mistletoe shoots must be sprayed to wet. Use of a nonionic surfactant at permitted rates may increase effectiveness. Any mistletoe regrowth should be treated during the labeled application window.	Large mistletoe infections and mistletoe found in mesquite may be difficult to control with a single application and retreatment may be necessary.

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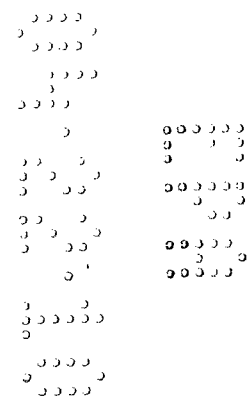
TURF

An application of Cardinal slows the growth of turfgrasses thus reducing the required frequency of mowing and the volume of clippings collected.

Treatment Area	Application Rate	Application	Spray Volume
Golf Course turf including Fairways, Roughs Commercial Turfgrasses, including Bentgrass (Fairway cut), Kentucky Bluegrass, Perennial Ryegrass, Tall & Fine Fescue	5 fl.oz. per 1000 sq.ft.	Apply to actively growing turf. It will require 7-10 days for Cardinal to act. Reapplication intervals: Kentucky Bluegrass-7 wks. Perennial Ryegrass-7 wks. Tall/Fine Fescue-4 wks. Bentgrass-4 wks.	0.5-4.0 gallons per 1000 sq.ft.

RESTRICTIONS:

Do not allow entry to treated area until sprays have dried.
For best results, apply with sprayer in sufficient volume of water to provide uniform coverage. Cardinal is foliarly absorbed. Apply only to actively growing turf, under favorable growing conditions, that is not going into a dormancy period. Do not treat turfgrass with poor root systems or growing under stress due to poor soil conditions, drought, disease or insect damage. Do not apply to golf course greens.
Use of spreader/stickers with Cardinal is not necessary.
Cardinal is an acidic product and prolonged exposure to spray deposits will damage acrylic plastics, certain paints and metals. Rinse thoroughly all exposed acrylic plastic materials and painted surfaces with a detergent and water within one hour after exposure to spray deposits.
Test tank mixes with other products on a small area before using widely.



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TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND THE EXCLUSIVE LIABILITY OF PHOENIX ENVIRONMENTAL CARE, LLC, ITS SUPPLEMENTAL DISTRIBUTORS AND THE SELLER FOR ANY AND ALL CLAIMS, LOSSES, DAMAGES, OR INJURIES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER OR NOT BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE, SHALL BE LIMITED, AT THE MANUFACTURER'S OPTION, TO REPLACEMENT OF OR THE REPAYMENT OF THE PURCHASE PRICE FOR THE QUANTITY OF PRODUCT WITH RESPECT TO WHICH DAMAGES ARE CLAIMED. When Buyer suffers losses or damages resulting from the use or handling of this product (including claims based on contract, negligence, strict liability, or other legal theories), Buyer must promptly notify Seller in writing of any claims to be eligible to receive either remedy stated above. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO CASE SHALL PHOENIX ENVIRONMENTAL CARE, LLC, ITS SUPPLEMENTAL DISTRIBUTORS, OR THE SELLER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. Phoenix Environmental Care, LLC, its Supplemental Distributors, and the Seller offer this product, and the Buyer accepts it, subject to the foregoing Conditions of Sale and Warranty, which may be varied only by agreement in writing signed by a duly authorized representative of Phoenix Environmental Care, LLC. No employee or agent of Phoenix Environmental Care, LLC, its Supplemental Distributor, or the Seller is authorized to vary or exceed the terms of this Warranty in any other manner.