



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

December 22, 2020

Maryanne Geisbush
Regulatory Consultant
United Phosphorous, Inc.
c/o Pyxis Regulatory Consulting, Inc.
4110 136th St. CT NW
Gig Harbor, WA 98332

Subject: Registration Review Label Mitigation for Paclobutrazol
Product Name: CutDown
EPA Registration Number: 70506-278
Application Date: April 7, 2016
Decision Number: 523451

Dear Ms. Geisbush:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Paclobutrazol Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A copy of your label stamped "Accepted" is enclosed. Products shipped after 12 months from the date of this amendment must bear the new revised label. Your release for shipment of the product bearing the amended label constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

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If you have any questions about this letter, please contact Srijana Shrestha by phone at 703-305-6471, or via email at Shrestha.Srijana@epa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Linda Arrington', with a stylized flourish at the end.

Linda Arrington, Branch Chief
Risk Management and Implementation Branch 4
Pesticide Re-Evaluation Division
Office of Pesticide Programs

Enclosure

CutDown™

Plant Growth Regulator for Turfgrass and Trees

ACTIVE INGREDIENT

Paclobutrazol: ((±)-(R*,R*)-b-[(4-chlorophenyl) methyl]-a-(1,1-dimethylethyl)-1H-1,2,4-triazole-1-ethanol): 22.3%

OTHER INGREDIENTS 77.7%

TOTAL 100.0%

CutDown™ contains 2 lbs. active ingredient per gallon.

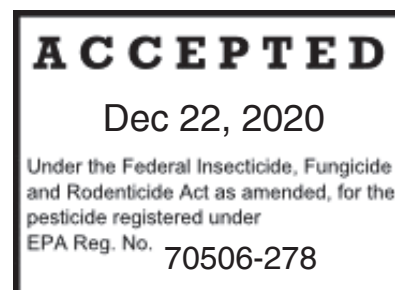
KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID	
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 IN EYES	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• 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, then give artificial respiration, preferably by mouth-to-mouth if possible.• Call a poison control center or doctor for further treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-888-875-1724 for emergency medical treatment information.	

Net Contents: ___ gallons

UPL NA Inc.
630 Freedom Business Center, Suite 402
King of Prussia, PA 19406

EPA Reg. No.: 70506-278
EPA Est. No.:



**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION**

Harmful if swallowed, inhaled or absorbed through the skin. Causes minor eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves made of any waterproof material including barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, or viton ≥ 14 mils.
- Shoes plus socks.

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. Wash PPE after each day's use.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately, if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 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

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 by cleaning of equipment or disposal of equipment washwaters.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

Failure to follow directions and precautions on this label may result in plant injury or poor disease control.

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. 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. Read all label directions carefully before use.

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 interval. 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 12 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
- Chemical-resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride, or viton
- Shoes plus socks

GENERAL INFORMATION

CutDown is a systemic plant growth regulator that slows vegetative growth by inhibiting gibberellin biosynthesis for use on turfgrass and trees. For turf, when CutDown is applied as directed, vertical growth of turf will be slowed within 3-10 days, resulting in reduced mowing frequency for a 6- to 8- week period. Following CutDown applications, turf will gradually undergo increased greening and density, which may persist up to 12 weeks. For trees, CutDown reduces the above ground vegetative growth and changes specific morphological characteristics of the tree plant. CutDown is most effective when applied to the soil near the base of the tree either by soil injection or with basal soil drench.

TURF

CutDown, a specialty plant growth regulator that slows vertical grass growth and reduces mowing for up to two (2) months after application. The frequency of mowing can be reduced by up to 50% during the period of effective retardation. Use of CutDown on fine turf should be accompanied by moderate-to-high fertility to maintain turfgrass appearance and reduce discoloration.

USE DIRECTIONS

Turf	Application (Product amount / a.i.- lbs per acre)	Application(s) May Result
St Augustine, Bermuda & similar warm season grasses	0.5 lbs. a.i. 32 fl. oz prod/A (Sandy soil)	Reduced mowing for 6-8 weeks on established hybrid bermudagrass, bent grass and perennial ryegrass fairways, tees and roughs and on St. Augustinegrass and Kentucky bluegrass/perennial ryegrass turf.
	0.75 lbs a.i. 48 fl. oz prod/A (Clay soil)	
Bluegrass, Rye, Fescue, Bent & similar cool season grasses (except putting greens)	0.25 to 0.50 lbs a.i. 16 -32 fl oz prod/A	Reduce potential for scalping and increase turf density and tighter-knit of all turfgrass areas. Suppression of <i>Poa annua</i> by reducing its growth and its compatibility, leading to selective control after prolonged use.
	Reduce by 50% if <i>Poa annua</i> is a major turfgrass population	
Bentgrass Putting Greens & Overseeded Bermuda	0.10 to 0.25 lbs a.i. 6.4 -16 fl oz prod/A	

Apply CutDown with standard pressurized application equipment with by-pass or mechanical agitation using 50 mesh strainer to turf in sufficient amount of water (minimum 1 gal water /1,000 sq ft.= 43.5 gals/A) to ensure spray coverage uniformly to turf and to avoid skipping and/or overlapping.

For best results, use 2 to 5 gals water /1,000 sq ft.

After application of CutDown, water-in within 24 hours to limit surface movement, but not to the point of runoff. To prevent product runoff, time applications to allow for watering-in and maximum absorption into treated turf prior to a rain event.

CutDown can be used any time when established hybrid bermudagrass and St. Augustinegrass are green, actively growing and have recovered from dormancy after winter.

CutDown can be applied in spring after green-up and after turf has been mowed once or twice. Apply at least 1 month before onset of high air temperatures. In late summer/early fall, apply at least 1 month before anticipated first killing frost.

Apply anytime after overseeded turf has established itself successfully. Do not apply after March 15th to avoid delay in Bermudagrass green-up.

Maintain moderate soil moisture conditions before and after each application to achieve best plant growth retardation effect.

A repeat application of CutDown within the same growing season may be made 8 weeks apart for growth regulation & 4 to 6 weeks apart for color, quality enhancement after the initial application. Do not make more than 3 applications per calendar year. Do not apply more than 4 quarts per acre per year (2 lbs. a.i./A).

CutDown will not prevent seedhead production if used alone. A tank mixture for a spray program using a seed head control agent (Embark®) is required when seedhead visibility is a problem. If Embark is used for *Poa annua* seedhead control, apply CutDown at least 14 days after the Embark application.

Weed, Insect and Diseases:

If crabgrass or other annual grassy weeds have been a problem in the past, an application of an appropriate preemergence weed control product should be made before the use of CutDown. Space applications of CutDown and preemergence product at least 4 weeks apart.

Broadleaf weeds are not significantly affected by CutDown. To control the growth of weeds, treat with an appropriate herbicide when weeds are actively growing. Carefully follow label directions.

If a weed, disease, or insect problem occurs after application of CutDown, apply control product at the recommended rate. CutDown is compatible with most existing control products. A compatibility test should be conducted with product(s) with which you do not have prior experience.

Regulator response and Turf cultivar

Excessive irrigation and/or nitrogen fertilization may shorten period of growth regulation. Regulator response will vary somewhat according to turf variety. For St. Augustinegrass, Bitter Blue will be the most responsive and Floratam the least responsive.

HYBRID BERMUDAGRASS

Sensitivity/Activity	Cultivar	Period of Growth Regulation	Period of Color Response
Medium/Good	Tifway I, II	5 - 6 weeks	6 - 8 weeks
High/Excellent	Tifgreen, Ormond	6 - 8 weeks	8 - 10 weeks

ST. AUGUSTINEGRASS

Sensitivity/Activity	Cultivar	Period of Growth Regulation	Period of Color Response
Low/Moderate	Floritam, Floralawn	4 - 6 weeks	5 - 8 weeks
Medium/Good	Floratine, Raleigh, Texas, Common	6 - 7 weeks	7 - 8 weeks
High/Excellent	Bitter Blue, Seville	7 - 8 weeks	8 - 10 weeks

GENERAL PRECAUTIONS

Not for use on bermudagrass putting greens except for winter overseeding enhancement use.
Not for use on athletic fields under heavy traffic where maximum growth potential of turf is desired.

Not for use on shrubs, flowers, fruits, or vegetable plants (applications to turf areas under trees will not affect/harm trees).

Do not use during periods of extreme dry or cold weather conditions, or during heavy insect or disease activity.

Do not apply product when soil is already saturated. Heavy rainfall or irrigation in the treated areas may cause active ingredient to move laterally on slopes and collect in low areas. These areas may undergo more severe growth control for a longer period of time.

Do not use on areas containing greater than 70% *Poa annua*, since discoloration of *Poa* may be unacceptable.

Delay treatment of newly-sodded or sprigged turf until grass has knitted down and rooted firmly.

Delay sprigging for at least 4 weeks and sodding at least 2 weeks after application is made.

Withhold application on large turf areas that have been thinned from winter drainage, disease, or insects until desired fill-in is achieved.

Assure that dosage rates are measured accurately since rates greater than those recommended may cause undesirable turf growth control and may discolor areas temporarily.

Do not mow treated grass for at least three days following application.

Do not use on areas to be cultivated for food or food crops or to be resown with grasses within two years of treatment.

Do not apply more than 4 qts. per acre per year (2 lbs. a.i./A).

Do not graze treated areas or harvest for forage or hay.

Do not apply this product through any type of irrigation equipment.

Do not apply CutDown to turf within rights-of ways.

TREES

CutDown as tree growth regulator is a xylem mobile plant growth regulator that slows vegetative growth by inhibiting gibberellin biosynthesis. CutDown reduces vegetative growth thereby reducing the volume of woody growth that must be removed from trees when trimming occurs and may extend the trimming cycle.

CutDown is equally effective when applied as a basal soil drench or by soil injection.

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

Symptoms of Growth Regulation

CutDown demonstrates little or no phloem mobility. Activity occurs following root uptake and xylem translocation throughout the tree canopy. Symptoms of growth regulation may not be

visible for up to 18 months following application of CutDown. Initial effects of CutDown may be observed as intense greening of foliage with no resulting phytotoxicity. At the time when normal vegetative growth extension should occur, trees treated with CutDown will exhibit shortened internodes which may be somewhat thickened. Smaller leaf size and enhanced flowering may also be observed in some species.

USE DIRECTIONS

Application Timing

Applications can be made throughout the year, weather permitting, except when soil is frozen or saturated with water.

Note: CutDown is absorbed by plant roots and translocated to the growing tissues in response to evaporative water loss (transpiration). If applications are made after fall leaf drop, uptake of CutDown will not occur until development of new leaves in the spring and resumption of transpiration.

Mixing Directions

Mix 317 mL (10.7 fl oz) of CutDown with water to make one gallon of diluted mixture. One gallon of CutDown will make 12 gallons of diluted mixture. To improve the handling characteristics of the diluted mixture, the addition of a suspension aid is recommended such as, nonionic and organosilicone surfactants.

Follow all label directions and precautions on the product label of the suspension aid.

Application Methods

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

Basal Drench

Prior to application, make a 2" deep furrow around the base of the tree near the point of contact between the soil and the tree trunk. Apply the required dose [see the following tables for the application rate and tree size DBH](Figure 1). Carefully pour the diluted mixture of CutDown into the furrow with a graduated container/jug or with a handheld hose connected to a truck-mounted tank/hydraulic sprayer. To avoid possible product runoff after applying, refill the furrow with untreated soil.

Soil Injection

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

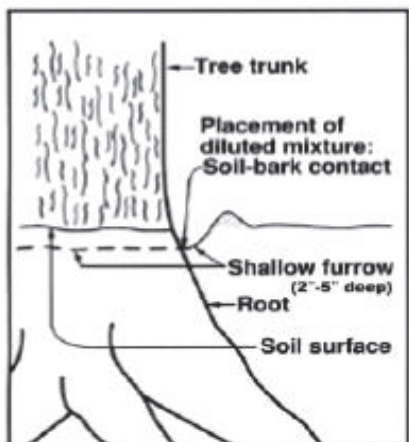


Figure 1. Placement CutDown as basal drench

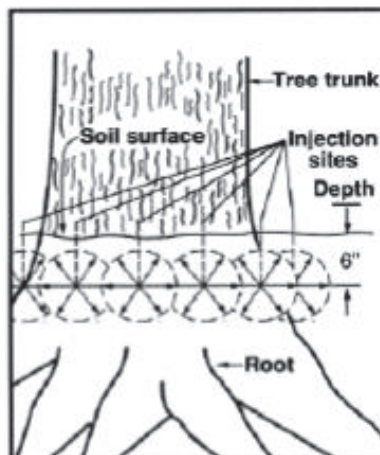


Figure 2. Placement of CutDown as a soil injected treatment.

APPLICATION RATE

Application Rate Ranges for Diluted Mixture of CutDown for Treatment of Various Tree Species ¹				
50 to 100 mL (1 to 2 grams a.i.) per inch DBH	100 to 150 mL (2 to 3 grams a.i.) per inch DBH		150 to 200 mL (3 to 4 grams a.i.) per inch DBH	
Australian Pine Dogwood Redbud Sweetgum	Basswood Beech Boxelder Buckeye Catalpa Elm(s) Hickory Horse Chestnut	Linden Locust, Honey Maple Mountain Ash Olive, Russian Sassafras Walnut	Alder Ash Aspen Birch Bradford Pear Cedar, Red Cherry, Black Cottonwood Eucalyptus Hackberry	Locust, Black Magnolia Mulberry Oak Pines Poplar Redwood Sycamore Willow

¹For acidic soils (low Ph), soils with high organic matter content or soils with high clay content, use the higher rate, not to exceed 4 grams a.i. per inch DBH.

Dia. of Tree at Breast	Amount of CutDown Diluted Mixture Required for Specific Application Rates and Tree Sizes			
	50 mL per inch DBH	100 mL per inch DBH	150 mL per inch DBH	200 mL per inch DBH
Height (DBH) (inches)	Total mL required	Total mL required	Total mL required	Total mL required
4	200	400	600	800
5	250	500	750	1000
6	300	600	900	1200
7	350	700	1050	1400
8	400	800	1200	1600
9	450	900	1350	1800
10	500	1000	1500	2000

12	600	1200	1800	2400
14	700	1400	2100	2800
16	800	1600	2400	3200
18	900	1800	2700	3600
20	1000	2000	3000	4000
22	1100	2200	3300	4400
24	1200	2400	3600	4800
26	1300	2600	3900	5200
28	1400	2800	4200	5600
30	1500	3000	4500	6000
32	1600	3200	4800	6400
34	1700	3400	5100	6800
36	1800	3600	5400	7200

GENERAL PRECAUTIONS

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

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

STORAGE AND DISPOSAL

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

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

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of federal law. If these 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 container (or equivalent) promptly after emptying.

[for containers equal to or less than 5 gallons] 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 $\frac{1}{4}$ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank and or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then 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.

[for containers greater than 5 gallons] Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container $\frac{1}{4}$ 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. Then offer for recycling or reconditioning if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

CONDITION OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of UPL NA Inc. or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold UPL NA Inc. and Seller harmless for any claims relating to such factors.

UPL NA Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or UPL NA Inc., and Buyer and User assume the risk of any such use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, UPL NA INC. MAKES NO WARRANTIES OF

MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, neither UPL NA Inc. nor Seller shall be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF UPL NA INC. AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF UPL NA INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT.

UPL NA Inc. and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of UPL NA Inc.

CutDown™ is a trademark of UPL NA Inc.
Embark® is a trademark of PBI/Gordon Corp