

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

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

SEP 14 2011

Matthew Granahan Nufarm Americas, Inc. 150 Harvester Drive, Suite 200 Burr Ridge, IL 60527

Subject: Notification per PR Notice 2007-4: Update Container Disposal Instructions

Cloak EX Herbicide EPA Reg. No. 71368-84

Application Dated: March 2, 2011

Dear Mr. Granahan:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice 2007-4 for the subject product.

The Registration Division (RD) has conducted a review of this request for its applicability under PRN 2007-4 and finds that the actions requested falls within the scope of this notice. The label submitted with the application has been date-stamped "Notification" and will be placed in our records.

If you have any questions regarding this letter, please feel free to contact Maggie Rudick at (703) 347-0257 or <a href="maggie@epa.gov">rudick.maggie@epa.gov</a>.

Sincerely,

Kable Bo Davis, Product Manager 25

Herbicide Branch

Registration Division (7505P)

Form Approved. OMB No. 2070-0060

United States  Environmental Protection Age Washington, DC 20460			псу		X	Registr Amend Other		OPP Identifier Number	
Application for Pesticide - Section I									
1. Company/Product Number 71368-84			2. EPA Product Manager 3. Bo Davis			3. P	roposed Classification		
4. Company/Product (Name) Cloak EX Herbicide			PM# 25						
5. Name and Address of Applicant (Include ZIP Code)  Nufarm Inc. 150 Harvester Drive, Suite 200  Burr Ridge, IL 60527			6. Expedited Reveiw. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to:  EPA Reg. No						
Check if this	is a new address	,-		Product	Name _				
			Sect	ion - II					
Amendment - Explain below.  Resubmission in response to Agency letter dated				ICATION					
Explanation: Use addition	al page(a) if pageager	(For cootin	n I and Saa	tion (I.)		_		ÇEP	1 4 2011
EPA's regulations at 40 CF Confidential Statement of F EPA. I further understand t 156.156, this product may t	formula for this produ that if the amended la	ct. I understa ibel is not con	ind that it is isistent with be subject t	a violation the require	of 18 U.S ments of	40 CF	ec. 1001 to FR §§ 156.1	willfully m 0, 156.14	ake any false statement to 0, 156.144, 156.146, and
1. Material This Product Will	Be Packaged In:								
Child-Resistant Packaging  X Yes No  * Certification must be submitted	Unit Packaging Yes X No If "Yes" Unit Packaging wgt.	ekaging Water o X		Yes No		2. Type of X	Type of Container  Metal X Plastic Glass Paper Other (Specify)		
		4. Size(s) Re	tall Cantain		T	Ela	etion of Le	al Disasti	
₩ I 80 07 6			x 80 oz., 8 x 80 oz.		7	. Capel Directions			
A Caper Container			graph X Other (Self-Adhesive Intergrated Label/Booklet) r glued ciled						
Section - IV									
1. Contact Point   Complete	items directly below f	or identification			ntected. i	f nece	ssary, to DI	ocess this	e application.)
Name			Title Telepho			Telephon	e No. (Include Area Code) 455-2048		
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 knowlingly felse or misleading statement may be punishable by fine or imprisonment or both under applicable law.  6. Date Application Received  (Stamped)				1					
2. Signatura			3. Title						
1/11/10			Regulatory Manager						
4. Typed Name			5. Date						
Matthew Granahan			03/02/2011						



Nufarm Americas Inc.

150 Harvester Drive, Suite 200 Burr Ridge, IL 60527

Telephone: (630) 455.2000 Facsimile: (630) 455.2001

www.us.nufarm.com

March 2, 2011

Via Overnight Courier

Bo Davis (PM-25) U. S. Environmental Protection Agency (7504P) Document Processing Desk (NOTIF) Room S4900, One Potomac Yard 2777 S. Crystal Drive Arlington, VA 22202

Subject:

Cloak EX Herbicide EPA Reg. No. 71368-84

Label Notification per PR 07-04

Dear Mr. Davis:

Nufarm Inc. would like to change Storage and Disposal text on above referenced label. It is believed this can be revised via notification and is consistent with PRN 07-04.

To process this request please find enclosed the following:

- Application for Pesticide Registration EPA form 8570-1
- Certification with Respect to Label Integrity
- Revised labeling with areas of change clearly identified (1 copy)
- Revised labeling clean (1 copy)
- CD containing the proposed labeling

If you should have any questions regarding this matter, please feel free to contact me at (630) 455-2048 or matthew.granahan@us.nufarm.com.

Sincerely,

Matthew Granahan Regulatory Manager

Nufarm Inc.

NOTIFICATION
SEP 1 4 2011

# CLOAK® EX HERBICIDE

# WATER-DISPERSIBLE GRANULES

# FOR BURNDOWN USE PRIOR TO PLANTING SOYBEANS

# **ACTIVE INGREDIENTS (by weight):**

Chlorimuron Ethyl:
Ethyl 2-[[[[(4-chloro-6-methoxypyrimidin-2-yl)amino]carbonyl]amino]sulfonyl]benzoate 22.7%
Tribenuron Methyl:
Methyl 2-[[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)methylamino]carbonyl]amino]sulfonyl]benzoate 6.8%
OTHER INGREDIENTS: 70.5%

This product is a water-dispersible granule containing 29.5% active ingredient by weight.

# CAUTION / PRECAUCION

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.)

SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300 For Medical Emergencies Only, Call (877) 325-1840

EPA REG. NO. 71368-84 EPA EST. NO. Manufactured For NUFARM, INC. 150 Harvester Drive Burr Ridge, IL 60527



**NET CONTENTS** 

071368-00084.20110302.EPA Not 07-04 NUP-06092

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION / PRECAUCION

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear protective eyewear. Wash thoroughly with soap and water after handling.

# 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 category selection chart.

# Applicators and other handlers must wear:

- · Long-sleeved shirt and long pants,
- · Shoes plus socks,
- · Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride,
- · Wear protective eyewear such as goggles.

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

Important: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "Applicators and Other Handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

# **USER SAFETY RECOMMENDATIONS**

# **Users Should:**

- · Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. If pesticide gets on skin, wash immediately with soap and water.
- 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.

FIRST AID					
IF IN EYES	<ul> <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>	-			
	HOT LINE NUMBER	-			

# 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 1-877-325-1840 for emergency medical treatment information.

#### **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 w ater w hen c leaning equi pment or di sposing of equi pment w ashwaters. To p revent c ontamination of t he environment, do not apply near water, storm drains, gutters or ditches. Do not apply when rain is predicted for that day or when wind is strong enough t o carry s pray away from t reatment area. R inse applicator e quipment over the lawn or garden area that was treated, away from water, storm drains, gutters or ditches.

# **DIRECTIONS FOR USE**

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.

This product must be used only in accordance with directions on this label. Nufarm will not be responsible for losses or damage resulting from the use of this product in any manner not specifically directed by Nufarm.

# **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 e mergency as sistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) 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 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 polyethylene or polyvinyl chloride, and shoes plus socks.

# **GENERAL INFORMATION**

This product is used as a pre-plant burndown herbicide prior to planting soybeans in most states. This product provides burndown and residual control of labeled winter annuals, perennials, and spring annuals when applied after the fall-harvest, up to 7 to 14 days prior to soybean planting. Check with your state extension service or Department of Agriculture before use, to be certain that this product is registered in your state.

This product is a water-dispersible granule formulation uses at a rate of 1.1 to 3.3 ounces per acre for burndown and residual weed control prior to soybean planting in no-till or conservation tillage fields. Include an adjuvant as recommended in this label. Crop Oil Concentrate is recommended for best results. Refer to the SPRAY ADJUVANT section of this label for additional information.

This product is non-corrosive, non-flammable, non-volatile, and does not freeze. This product should be mixed in water and applied as a uniform broadcast spray.

This product may be applied by ground (broadcast or band) or by air. For ground application, apply a minimum of 15 gallons of water for best performance. Use a combination of nozzle and pressure settings that result in a medium to coarse spray droplet size. For aerial application, use nozzle types and arrangements that provide optimum spray distribution and maximum coverage at a minimum of 3 GPA.

For season-long control of all broadleaf and grass weeds following application of this product, a planned sequential program is required.

Consult label text for complete instructions. Always read and follow label directions for use.

# **IMPORTANT PRECAUTIONS**

Do not apply to frozen ground.

Use only in the geographies identified in the ROTATIONAL CROP GUIDELINES section of this label.

Do not apply within 7 to 14 days of planting soybeans.

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

Do not graze treated fallow fields, or harvest for forage or hay.

This product should not be used on soils with a history of nutrient deficiency (such as iron chlorosis). Crop injury may occur.

Do not apply to land that has been treated with DuPont Glean, Alley, or Finesse herbicides in the states of Kansas or Nebraska without carefully observing the rotational crop intervals for those products.

Injury to or loss of desirable vegetation may result from failure to observe the following:

- Do not apply this product or drain or flush application equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- · Do not use on lawns, walks, driveways, tennis courts, or similar areas.
- · Prevent drift of spray to desirable plants.
- Do not contaminate any body of water.
- Do not mix/load, or use within 50 feet of all wells including abandoned wells, drainage wells, and sink holes.
- · Avoid storage of pesticide near wells sites.
- Keep this product from coming in contact with fertilizers, insecticides, fungicides, and seeds during storage.
- Thoroughly clean application equipment immediately after us e and prior to spraying other crops. Failure to remove even small amounts of this product from application equipment may result in injury to subsequently sprayed crops. (See the Sprayer Cleanup section of this label for instructions.)
- Calibrate sprayers only with clean water away from the well site.
- Follow rotational crop interval listed elsewhere on this label.

# Rainfast Interval

Do not apply this product is rain is expected within 2 hours or weed control may decrease.

#### PESTICIDE HANDLING

- Calibrate sprayers only with clean water away from the well site.
- Make scheduled checks of spray equipment.
- Ensure accurate measurement of pesticides by all operation employees.
- Mix only enough product for the job at hand.
- Avoid over-filling of spray tank.
- Do not discharge excess material on the soil at a single spot in the field/grove or mixing/loading station.
- Dilute and agitate excess solution and apply at labeled rates/uses.
- Avoid storage of pesticides near well sites.
- When triple rinsing the pesticide container, be sure to add the rinsate to the spray mix.

#### **ENVIRONMENTAL CONDITIONS AND BIOLOGICAL ACTIVITY**

This product is absorbed through the foliage and roots of plants where it rapidly inhibits growth of susceptible weeds. Leaves of susceptible plants appear c hiorotic and t he growing points ubsequently dies. Weed species that are suppressed instead of controlled may remain green, but will be stunted and noncompetitive.

This product will provide the best results when applied to young, actively growing weeds. Degree of control depends on: rate used; weed spectrum; wied size (use adequate spray violume to get coverage); growing conditions at and following treatment; soil moisture; precipitation; and spray adjuvants. Treating weeds under stress or large weeds may result in only partial control.

Stress may be caused by:

- · abnormal weather (hot or cold)
- · mechanical injury from cultivation
- · drought
- · water-saturated soil
- disease
- · insect injury
- · prior herbicide injury

# THE IMPORTANCE OF SOIL pH

Soil pH varies greatly, even within the same field. Variations in pH as much as 2 pH units are common. Composite soil samples taken across an entire field, such as those samples taken for soil fertility recommendations, may not detect areas of high pH. Subsampling is recommended for areas likely to have pH values higher than the field average. The following is a non-inclusive list of potential high pH areas where subsampling is recommended.

- · Where different soil types are evident within a field, sample soil types separately.
- · Where conditions vary within a field, sample areas separately, such as:
  - areas bordered by limestone gravel roads,
  - river bottoms subject to flooding,
  - low areas in hardpan soils where evaporative ponds may occur,
  - eroded hillsides,
  - along drain tile lines, and
  - areas where drainage ditch spoil has been spread.
- Where lime has not been deeply incorporated, soil may exhibit significantly higher pH values in the upper 3 inches of soil. Composite soil samples taken at a 6 to 8 inch depth may not reflect the elevated pH near the surface. In these cases shallow sampling, the upper 3 inches, is advised.

Determine soil pH by laboratory analysis using a 1:1 soil:water suspension.

# SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather-related factors determines the potential for spray drift. A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial, airblast, chemigation) can influence spray drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product. The applicator is responsible for considering all these factors when making application decisions.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

# IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets (>150 to 200 microns). The best drift management strategy is to apply the I argest droplets that provide sufficient coverage and control. The presence of sensitive species near by, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. 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 sections of this label.

# **Controlling Droplet Size - General Techniques**

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

80415

- Pressure Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.
- 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.

# Controlling Droplet Size - Aircraft

- Number of Nozzles Use the minimum number of nozzles with the highest flow rate that provide uniform coverage. SPRAY DRIFT MANAGEMENT SPRAYER PREPARATION AND CLEANUP.
- Nozzle Orientation Orienting nozzles so that the spray is emitted backwards, parallel to the airstream will produce larger droplets than other orientations.
- Nozzle Type Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.
- Boom Length The boom length should not exceed 3/4 of the wing or rotor length longer booms increase drift potential. For helicopters, use a boom length and position that prevents droplets from entering the rotor vortices.
- · Boom Height Application more than 10 feet above the canopy increases the potential for spray drift.

#### **BOOM HEIGHT (Ground)**

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### WIND

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. AVOID GUSTY OR WINDLESS CONDITIONS.

**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 hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

#### **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions restrict vertical air mixing, which causes small suspended dr oplets to r emain c lose to the ground and move I aterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature 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

This product 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 sensitive areas).

#### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

# AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured properly, and that drift is not occurring. **Note:** Air assisted field s prayers can affect product performance by affecting spray c overage and c anopy penetration. Consult the application equipment section of this label to determine if use of an air assisted sprayer is recommended.

# RESISTANCE MANAGEMENT

When her bicides that affect the same biological site of action are used repeatedly over several years to control the same weed species in the same field, naturally-occurring resistant biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that field. A dequate control of these resistant wield biotypes cannot be expected. If wield control is unsatisfactory, it may be necessary to retreat the problem area using a product affecting a different site of action.

To better manage herbicide resistance through delaying the proliferation and possible dominance of herbicide resistant weed biotypes, it may be necessary to change cultural practices within and between crop seasons such as using a combination of tillage, retreatment, tank-mix partners and/or sequential herbicide applications that have a different site of action. Weed escapes that are allowed to go to seed will promote the spread of resistant biotypes.

It is advisable to keep a ccurate records of pesticides applied to individual fields to help obtain information on the spread and dispersal of resistant biotypes. Consult your agricultural dealer, consultant, applicator, and/or appropriate state agricultural extension service representative for specific alternative cultural practices or herbicide recommendations available in your area.

#### INTEGRATED PEST MANAGEMENT

This product may be used as part of an Integrated Pest Management (IPM) program that can include biological, cultural, and genetic practices aimed at preventing economic pest damage. IPM principles and practices include field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. C onsult y our state c operative ex tensions ervice, pr ofessional consultants or other qual ified aut horities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

#### APPLICATION EQUIPMENT

#### SPRAYER PREPARATION

It is important that spray equipment is clean and free of existing pesticide deposits before using this product. Start with clean, well maintained application equipment. Clean all application equipment before applying this product. Follow the spray tank cleanout procedures specified on the label of the product previously sprayed. If no cleanout procedure is provided, follow the cleanout procedure below for all application equipment. Immediately following applications of this product, thoroughly clean all mixing and spray equipment to avoid subsequent crop injury.

- STEP 1. Thoroughly rinse sprayer, tanks, booms, nozzles, and hoses with clean water. Loosen and physically remove visible deposits.
- STEP 2. Partially fill the tank with clean water and add household ammonia (one gallon of 3% active for every 100 gallons of water).

  A similar sprayer cleaner may also be used by following the label directions for that purpose. Complete filling the tank with water and flush the cleaning solution through the boom and hoses. Let stand for 15 minutes with agitation or recirculation and then drain the tank after flushing the hoses, boom and nozzles.
- STEP 3. Thoroughly rinse the sprayer, hoses, boom and nozzles with clean water.
- STEP 4. Follow label directions of the product previously sprayed for rinsate disposal.

Notes: During an extended period where spraying or mixing equipment will be used to apply multiple loads of this product, at the end of each day of spraying partially fill the tank with fresh water, flush the boom and hoses and allow to sit overnight. A steam cleaning of aerial spray tanks is recommended to dislodge any visible pesticide deposits.

#### **EQUIPMENT / SPRAY VOLUMES**

Many crops are highly sensitive to this product. All direct or indirect contact (such as spray drift) with crops other than fallow fields should be avoided (see also SPRAY DRIFT MANAGEMENT).

For all application systems, use 50-mesh or larger strainer screens.

# **GROUND APPLICATION**

#### **Broadcast Application:**

- · Use a minimum of 20 gallons of water per acre (GPA) to ensure uniform coverage of soil and the best performance.
- For best performance, select nozzles and pressure combinations that deliver medium spray droplets, as indicated, for example, by ASAE standard S572. Nozzles that deliver coarse spray droplets may be used to reduce drift, provided spray volume is increased to maintain coverage on small weeds. For optimal product performance and minimal spray drift, adjust the spray boom to the lowest possible spray height recommended in manufacturers' specifications.
- · Overlaps or starting, stopping, slowing, and turning while spraying may result in crop injury.

# **AERIAL APPLICATION**

Use nozzle types and arrangements that will provide optimum spray distribution and maximum coverage in a minimum of 3 GPA.

Do not apply during a temperature inversion, when winds are gusty, or when conditions favor poor coverage and/or off-target spray movement.

Do not apply this product by air in the state of New York.

#### PRODUCT MEASUREMENT

This product is measured using the CLOAK™ EX volumetric measuring cylinder. The degree of accuracy of this cylinder varies by ± 7.5%. For more precise measurement, use scales calibrated in ounces.

# PRODUCT MIXING INSTRUCTIONS

- 1. Fill the tank 1/4 to 1/3 full of water.
- 2. While agitating, add the required amount of this product.
- 3. Continue agitation until this product is fully dispersed, at least 5 minutes.
- 4. Once this product is fully dispersed, maintain agitation and continue filling tank with water. Thoroughly mix this product with water before adding any other material.
- 5. As the tank is filling, add the required spray adjuvants (crop oil concentrate, nonionic surfactant, or ammonium nitrogen fertilizer).
- 6. If the mixture is not continuously agitated, settling will occur. If settling occurs, thoroughly re-agitate before using.
- 7. Apply spray mixture within 24 hours of mixing to avoid product degradation.
- 8. If this product and a tank mix partner are to be applied in multiple loads, pre-slurry this product in clean water prior to adding to the tank. This will prevent the tank mix partner from interfering with the dissolution of this product.

#### TANK MIX COMPATABILITY TESTING

Perform a jar test prior to tank mixing to ensure compatibility of this product and other pesticides. Use a clear glass quart jar with lid and mix the tank mix ingredients in their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately 1/2 hour. If the mixture balls-up, forms flakes, sludges, gels, oily films or layers, or other precipitates, it is not compatible and the tank mix combination should not be used.

#### SPRAYER CLEANUP

To avoid subsequent injury to desirable crops, thoroughly clean all mixing and spray equipment immediately following applications of this product as follows:\*

- STEP 1. Drain tank; thoroughly hose down the interior surfaces of the tank; then flush tank, boom, and hoses with clean water for a minimum of 5 minutes.
- STEP 2. Partially fill the tank with clean water and add household ammonia (one gallon of 3% active for every 100 gallons of water).

  A similar sprayer cleaner may also be used by following the label directions for that purpose. Complete filling the tank with water and flush the cleaning solution through the boom, hoses and nozzles. Add water to completely fill the tank and allow to agitate or recirculate for at least 15 minutes. Again flush the boom, hoses and nozzles, and drain the tank.
- STEP 3. Repeat Step 2.
- STEP 4. Remove the nozzles and screens and clean separately in a bucket containing water and the cleaning agent.
- STEP 5. Thoroughly rinse the tank with clean water for a minimum of 5 minutes, flushing water through the boom and hoses.
- \* Equivalent amounts of an alternate strength ammonia solution or a tank cleaner specified for this type of use.

#### **APPLICATION INFORMATION**

#### **GEOGRAPHIC USE REGIONS**

The geographical use regions for this product are defined below:

# Northern Region

The states of Iowa (west of State Route 63 and north of I-80), Minnesota, Nebraska (fields north of route 30 and west of Route 281), New York (fields north of Interstate 90), South Dakota and Wisconsin (fields north of Interstate 90 between Lacrosse and Madison and fields north of Interstate 94 between Madison and Milwaukee). <u>Do not use CLOAK™ EX in the Northern Region.</u>

#### **Central Region**

The states of Delaware, Illinois, Indiana, Iowa (fields east of State Route 63 or south of I-80), Kansas, Maryland, Michigan, Missouri (except the Bootheel), Nebraska (fields south of Route 30 and east of Route 281), New Jersey, New York (fields south of I-90), Ohio, Pennsylvania, Virginia, West Virginia and Wisconsin (fields south of I-90 between La Crosse and Madison and fields south of I-94 between Madison and Milwaukee).

#### Southern Region

The states of A labama (except the "Black Belt" where soil pH must be less than 7.0), Arkansas, Florida, Georgia, Kentucky, Louisiana, Missouri (Bootheel region only), Mississippi (except the "Black Belt" where soil pH must be less than 7.0), North Carolina, Oklahoma, South Carolina, Tennessee and Texas (fields east of Route 183). <u>Do not use CLOAK™ EX in Florida.</u>

#### **TIMING TO CROP**

This product can be applied to no-till or conservation tillage fields anytime after the fall harvest, up to 7 to 14 days prior to soybean planting.

- For 1.1 up to, and including, 2.2 ounces per acre of CLOAK™ EX, plant soybeans a minimum of 7 days after CLOAK™ EX application.
- For greater than 2.2 up to 3.3 ounces per acre of CLOAK™ EX, plant soybeans a minimum of 14 days after CLOAK™ EX application.

# Timing to Weeds: Burndown

For best results, apply to annual broadleaf weeds that are up to 3 inches in height or diameter and to perennial broadleaf weeds that are up to 6 inches in height or diameter. Where the rate is not restricted by soil pH, use higher CLOAK™ EX rates for improved residual activity.

# RATE

REGION	pH	RATE OUNCES PER ACRE*			
In Medium and Fine Soils - 1.5 to 4.0% organic matter					
Central Region  Delaware, Illinois, Indiana, Iowa, Kansas, Maryland, Michigan, Missouri (except the Bootheel),	No pH restriction**	1.1 ounces/A			
Nebraska, New Jersey, New York*, Ohio, Pennsylvania , Virginia, West Virginia and Wisconsin*	Composite soil pH of 7 or less	1.5 to 3.3 ounces/A			
Southern Region Alabama†, Arkansas, Georgia, Kentucky, Louisiana, Missouri	No pH restriction	1.1 to 1.65 ounces/A			
(bootheel region only), Mississippi †, North Carolina, Oklahoma, South Carolina, Tennessee, Texas (fields east of Rte. 183)	Composite soil pH of 7 or less	greater than 1.65 to 3.3 ounces/A			

<sup>\*</sup> In the portions of Wisconsin and New York in the Central Region, the use rate is limited to no greater than 1.1 ounces per acre.

# Weeds Controlled - Burndown

For the best burndown results, the addition of 2,4-D LVE is required for control of some weeds.

This product applied at 1.1 to 3.3 ounces per acre, will burndown the following weeds.

# Table 1. Burndown Control of Emerged Winter Annual, Perennial, and Summer Annual Weeds

Bittercress, Small-flowered Bushy Wallflower	Lettuce, Prickly Marestail (horseweed)*	Smartweed, Annual Speedwell (Field, Purslane)
Buttercup, Smallflower	Mustard, (Tansy, Wild)	Sunflower
Butterweed	Pennycress, Field	Thistle, Canadian
Dandelion	Pepperweed	(above ground portion)
Deadnettle, (Purple, Red)	Pigweed	Velvetleaf
Garlic, Wild*	Ragweed, Common	Whitlowgrass
Henbit	Ragweed, Giant	Yellow-rocket
Lambsquarters*	Shepherdspurse	

<sup>\*</sup> Addition of 8 ounces ai per acre 2,4-D LVE is required for all CLOAK  $^{\text{\tiny{TM}}}$  EX rates.

<sup>\*\*</sup>In Michigan, New York and Wisconsin, do not apply the 1.1 ounces per acre rate to soils exceeding pH 7.6. In all other states, the soil pH is unrestricted for the 1.1 ounces per acre rate.

<sup>†</sup> except the 'Black Belt' soils, where pH must be less than 7.0.

# Weeds Controlled - Preemergence

Fall through early Spring applications of 1.1 ounces per acre CLOAK™ EX will provide limited residual control of listed weeds to contribute to a clean seedbed at normal planting times.

Fall through early Spring applications of 1.5 to 3.3 ounces per acre CLOAK™ EX will provide acceptable preemergence control, or partial control (suppression), of the following weeds through normal planting dates.

# Table 2. Weeds Controlled or Suppressed Preemergence

CONTROL

SUPPRESSION

Cocklebur

Annual Grasses\*

Lambsquarters

(Foxtails, Barnyardgrass, Crabgrass, Panicum)

Henbit

Chickweed, Common Jimsonweed

Marestail Pigweed

Morningglory, Annual\*

(Redroot, Smooth) Purslane speedwell

Nutsedge, Yellow

Ragweed, Common

Prickly Sida\*

Smartweed, Annual

(Teaweed)

Ragweed, Giant\*

Winter annual mustards

Velvetleaf

(Pennycress, Bittercress, Shepherdspurse,

Whitlowgrass, Yellow-rocket)

\* With 1.1 ounces per acre applications of CLOAK™ EX, heavy weed pressure, delayed planting, or adverse environmental conditions may require additional burndown control measures at planting. For enhanced residual control, products such as 2 to 4 ounces per acre Sencor®, or other metribuzin containing pesticides labeled for this use, may be tank mixed with 1.1 ounces per acre CLOAK™ EX.

In addition to the weeds noted in the lists above, this product has activity on a range of other weeds. Consult fact sheets, technical bulletins, and service policies for information on other weeds controlled.

#### **SPRAY ADJUVANTS**

Applications of this product must include either a crop oil concentrate or a nonionic surfactant. Crop oil concentrate is the required adjuvant system unless tank mixing with a product that precludes use of crop oil concentrate.

Consult local fact sheets, technical bulletins, and service policies prior to using other adjuvant systems. If another herbicide is tank mixed with this product, select adjuvants authorized for use with both products. Adjuvants must contain only EPA-exempt ingredients (40 CFR 1001).

# Crop Oil Concentrate (COC) - Petroleum or Modified Seed Oil (MSO)

- Apply at 1% v/v (1 gallon per 100 gallons spray solution) or 2% under arid conditions.
- Oil adjuvants must contain at least 80% high quality, petroleum (mineral) or modified vegetable seed oil with at least 15% surfactant emulsifiers.

# Nonionic Surfactant (NIS)

- Apply at 0.25% v/v (1 quart per 100 gallons spray solution) or 0.5% under arid conditions.
- Surfactant products must contain at least 60% nonionic surfactant with a hydrophilic/lipophilic balance (HLB) greater than 12.

#### Special Adjuvant Types

- Combination adjuvant products may be used at doses that provide the required amount of NIS, COC, MSO and/or ammonium nitrogen fertilizer. Consult product literature for use rates and restrictions.
- In addition to the adjuvants specified above, other adjuvant types may be used if they provide the same functionality. Consult separate technical bulletins for detailed information before using adjuvant types not specified on this label.

#### **TANK MIXTURES**

# **Tank Mix Restrictions**

When tank mixing this product with any other approved soybean pesticides, always read and follow all use directions, restrictions, and precautions of the CLOAKTM EX and tank mix partner(s) labels. If those instructions conflict with this label, do not tank mix the product(s) with CLOAK™ EX. When tank mixing, the most restrictive labeling applies.

# For Additional Control of Emerged Grass and Broadleaf Weeds

To burndown annual grasses and broadleaf weeds listed above when they exceed the listed heights, this product may be tank mixed with full or reduced rates of products registered for use on soybeans, such as: Gramoxone® Extra, 2,4-D LVE, Sencor®, Assure® II, or glyphosate-containing pr oducts. When t ank mixing w ith glyphosate-containing pr oducts, r eplace t he crop oi ! concentrate with nonionic surfactant at 0.25% v/v (1 quart per 100 gallons final spray volume) and follow the manufacturer's instructions for ammonium sulfate addition. To select the proper tank mix burndown product, identify the weeds to be controlled and consult the product labels to determine which product is needed.

# For Additional Residual Control of Grass and Broadleaf Weeds

In addition to tank mixtures for burndown, this product may be tank mixed with full or reduced rates of preemergence herbicides registered for soybeans, such as Cinch® or Sencor®.

# **PLANNED SEQUENTIAL PROGRAMS**

CLOAK™ EX applied in the fall or early spring will not provide season-long preemergence control of annual grasses and broadleaf weeds.

- For season-long control in glyphosate-tolerant soybeans, follow CLOAK™ EX with an in-season glyphosate-containing herbicide.
- For season-long control in conventional soybeans, follow CLOAK™ EX with sequential programs based on the targeted weeds.

To ensure maximal rotational flexibility when considering a sequential program of CLOAK™ EX followed by other herbicides containing Chlorimuron ethyl, such as CURIO™ or Synchrony® XP, carefully consider: the soil pH, the recommendations below, and the Rotational Crop Guidelines in this label.

# Applications of 1.1 ounces per acre CLOAK™ EX to soils with pH greater than 7:

Do not apply additional chlorimuron-ethyl containing herbicides (such as CURIO™ and Synchrony® XP) except in the states of AL, AR, GA, KY, LA, MO (bootheel), MS, NC, OK, SC, TN, and TX, where up to 0.5 ounces per acre CURIO™ may be applied.

# Applications of 1.5 ounces per acre CLOAK™ EX to soils with pH greater than 7:

Do not apply additional chlorimuron-ethyl containing herbicides (such as CURIO™ and Synchrony® XP).

# Applications of 1.1 - 3.3 oz/acre CLOAK™ EX to soils with pH of 7 or less:

A single postemergence application of CURIO™ or Synchrony® XP may be applied at the rates recommended below.

CLOAK™ EX (ounces/acre)	SEQUENTIAL APPLICATION OF CURIO™ HERBICIDE (ounces/acre)	SEQUENTIAL APPLICATION OF SYNCHRONY® HERBICIDE (ounces/acre)
up to 2.6	up to 0.75	up to 0.75
up to 3.0	up to 0.50	up to 0.375
up to 3.2	up to 0.33	up to 0.375
up to 3.3	up to 0.25	<del>-</del>

<sup>\*</sup> Refer t o the C URIO™ and/ or S ynchrony® X P her bicide I abels for specific i nformation r egarding us e r ates, application timing, crop rotations, and other restrictions and precautions.

# **ROTATIONAL GUIDELINES**

Even though this product may be applied in the fall, for the purposes of re-cropping, do not start counting months for re-cropping until normal soybean planting time in the spring.

Crop rotation intervals noted in Table 3 below are based on crops grown under favorable growing conditions. Crops grown under unfavorable env ironmental c onditions, such as dr ought, nutrient def iciency, hi gh salts, di sease and i nsect pressure may demonstrate reduced tolerance to crop protection chemicals. When deciding on a particular crop to replant in your fields, carefully consider your particular soil and other field conditions. (see IMPORTANCE OF SOIL pH section of this label).

# **Rotational Crops - Central and Southern Regions**

#### Central Region

The states of Delaware, Illinois, Indiana, Iowa (fields east of State Route 63 or south of I-80), Kansas, Maryland, Michigan, Missouri (except the Bootheel), Nebraska (fields south of Route 30 and east of Route 281), New Jersey, New York (fields south of I-90), Ohio, Pennsylvania, Virginia, West Virginia and Wisconsin (fields south of I-90 between La Crosse and Madison and fields south of I-94 between Madison and Milwaukee).

- For applications of 1.1 ounces per acre CLOAK™ EX to any pH soil, follow Rotational Interval 1 in Table 3.
- For applications of CLOAK™ EX greater than 1.1 ounces per acre, including all sequential instructions in this label, follow Rotational Interval 3 in Table 3.

#### Southern Region

The states of Alabama (except the "Black Belt" where soil pH must be less than 7.0), Arkansas, Florida, Georgia, Kentucky, Louisiana, Missouri (Bootheel region only), Mississippi (except the "Black Belt" where soil pH must be less than 7.0), North Carolina, Oklahoma, South Carolina, Tennessee and Texas (fields east of Route 183). <u>Do not use CLOAK™ EX in Florida.</u>

- For applications of 1.1 to 1.65 ounces per acre CLOAK™ EX to any pH soil, follow Rotational Interval 2 in Table 3.
- For applications of C LOAK™ EX greater than 1.65 ounces per acre, including all sequential instructions in this label, follow Rotational Interval 3 in Table 3.

Table 3 ROTATIONAL CROP INTERVALS					
FOR CLOAK™ EX AT RATE OF 1:1 TO 3.3 OUNCES PER ACRE					
(a) CROP	INTERVAL 1 (months)	INTERVAL 2 (months)	INTERVAL 3 (months)		
Cereal Grains, Pasture Grasses	3	3	4		
Dry Beans, Kidney Beans, Peas, Snap Peas	9	9	12		
(b) Field Com	9	N/A	(c)		
Field Corn (states of AR, KY, MO (Bootheel only), NC, OK, TN and TX)	N/A	8	N/A		
Field Com (D) (states of AL, GA, LA, MS and SC)	N/A	7	N/A		
Sweet Corn	18	18	18		
Popcorn	9	9	N/A		
Sorghum	9	9	(d) 12 / 10		
Tobacco (transplant)	9	9	10		
Tomato (transplant)	9	9	10		
Peanuts	15	6	8		
Rice	15	9 (e)	10		
Cotton	9	8	10		
Alfalfa	12	9	10		
Clover	12	9	12		
Cabbage, Canola (rapeseed), Cucumber, Flax, Lentils, Mustard, Pumpkins, Sunfower, Watermelon	18	18	18		
Carrots, Onions, Sugar Beets, and Any Crop Not Listed	30	30	18 / 30 (f)		
Sweet Potatoes, Yams	30	10	(f) 18 / 30		
Potatoes	30	30	(f) 18 / 30		
Potatoes (NC, VA)	8 <sup>(g)</sup>	8 <sup>(g)</sup>	18		

#### N/A = Not Applicable

- (a) If a sequential application containing chlorimuron-ethyl (CURIO™ or Synchrony® XP) is applied after August 1st, extend the rotational crop intervals 2 months for alfalfa, clover, corn, cotton, popc orn, rice, sorghum, tobacco and tomato.
- (b) For the purpose of Rotational Crop Guidance, the term 'field corn' is defined to include only corn grown for grain or silage, or for seed corn.
- (c) In the states of DE, KY, MD, MO (Bootheel), NJ, NC, SC, TN, VA, and WV, field corn may be re-cropped after 9 months if the total chlorimuron-ethyl applied does not exceed 0.64 ounces per acre.
- (d) CLOAK™ EX treated fields in the states of AL, AR, DE, GA, KY, LA, MD, MO (Bootheel), MS, NJ, NC, SC, TN, TX, VA, or WV may be re-cropped to sorghum after 10 months. In all other states, the rotational interval is 12 months.
- (e) In soils with pH 7.0 or less, replant rice after 9 months. In soils with pH greater than 7.0 and a CLOAK™ EX rate no greater than 1.1 ounces per acre, rice may be replanted after 10 months, as long as no other chlorimuron-ethyl containing product (e.g. CURIO™, Synchrony® XP) was applied in the same season as the CLOAK™ EX. In soils with pH greater than 7.0 and a CLOAK™ EX rate greater than 1.1 ounces per acre, or where 1.1 ounces per acre was followed with other chlorimuron-ethyl containing products, the recrop to rice is 18 months.
- (f) CLOAK™ EX treated fields in the states of AL, AR, DE, GA, KY, LA, MD, MO (bootheel), MS, NJ, NC, SC, TN, TX, VA, or WV may be re-cropped to carrots, onions, sugar beets, sweet potatoes, yams and potatoes after 18 months. In all other states the rotational interval is 30 months.
- (g) States of NC and VA in soils with organic matter greater than 1%.

# STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store product in original container only. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Store in a cool, dry place.

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

#### CONTAINER DISPOSAL:

For Plastic Containers: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 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 flow begins to drip. Repeat this procedure two more times.

For Fiber Sacks: Nonrefillable container. Do not reuse or refill this container. Completely empty sack by shaking and tapping sides and bottom to I oosen clinging particles. Empty residue into manufacturing or application equipment. Then offer for recycling, if available, or dispose of sack in a sanitary landfill or by or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

For Fiber Drums with Liners: Nonrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bot tom to loosen clinging particles. Empty residue into manufacturing or application equipment. Then offer for recycling, if available, or dispose of liner in a sanitary landfill or by or incineration, or, if allowed by State and I ocal authorities, by burning. If burned, stay out of smoke.

For Paper and Plastic Bags: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling, if available, or dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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