

279-3338

04-29-2011

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

OFFICE OF
CHEMICAL SAFETY AND
POLLUTION PREVENTION

Callista O. Chukwunenye
FMC Corporation
1735 Market Street
Philadelphia, PA 19103

APR 29, 2011

Subject: Notification per PR Notice 98-10 (revise directions for use)
Cadet Herbicide
EPA Reg. No. 279-3338
Application Dated March 17, 2011

Dear Ms. Chukwunenye:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the subject product. The Registration Division (RD) has conducted a review of this request finds that the action falls within the scope of PRN 98-10. The label submitted with the application has been date-stamped "Notification" and will be placed in our records.

If you have any questions, please contact Mindy Ondish at (703)605-0723 or at ondish.mindy@epa.gov.

Sincerely,

A handwritten signature in black ink that reads "Kathryn V. Montague". The signature is written in a cursive style with a large, circular flourish at the end.

Kathryn V. Montague
Product Manager 23
Herbicide Branch
Registration Division (7505P)



United States
Environmental Protection Agency
Washington, DC 20460

<input type="checkbox"/>	Registration
<input type="checkbox"/>	Amendment
<input checked="" type="checkbox"/>	Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number FMC Corporation/ 279-3338	2. EPA Product Manager Kathryn V. Montague	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) FMC Corporation/Cardet Herbicide	PM# 23	
5. Name and Address of Applicant (Include ZIP Code) FMC Corporation - Agricultural Products Group 1735 Market Street Philadelphia, PA 19103 <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. <u>279-3338</u> Product Name <u>Cadet Herbicide</u>	

Section - II

NOTIFICATION

APR 29 2011

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<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.)

Notification of label change per PR Notice 98-10. This notification is consistent with the guidance in PR Notice 98-10 and the requirements of EPA's regulations at 40 CFR §§ 156.10, 156.140, 156.144, 156.146, and 156.156. No other changes have been made to the labeling or the Confidential Statement of Formula for this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if the amended label is not consistent with the requirements of 40 CFR §§ 156.10, 156.140, 156.144, 156.146, and 156.156, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Section - III

1. Material This Product Will Be Packaged In:				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 type="checkbox"/> Label <input checked="" type="checkbox"/> Container		4. Size(s) Retail Container		5. Location of Label Directions <input checked="" type="checkbox"/> on label/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 Callista O Chukwunyenye	Title Manager, Product Registrations	Telephone No. (Include Area Code) (215)299-6592
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Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

6. Date Application Received (Stamped)

2. Signature 	3. Title Manager, Product Registrations
4. Typed Name Callista O. Chukwunyenye	5. Date March 17, 2011

FMC Agricultural Products

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FMC Corporation
1735 Market Street
Philadelphia, PA 19103
215.299.600 Phone
215.299.6468 Fax
www.fmc.com

March 17, 2011

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

Dear Ms. Montague:

Subject: Notification for Cadet Herbicide (EPA Reg. No.: 279-3338) per PR Notice 98-10 (II.B and II.N)

On March 10, 2011 the EPA approved the label amendment adding preplant burndown use to the Cadet Herbicide label. This letter is to notify the EPA that FMC has added the words "preplant" and "burndown" to relevant sections of the Cadet Herbicide label. We have also added weeds and weed table to the label. The additions are shown in red text on the enclosed label. The revised pages are as follows:

Page 1: Added "preplant burndown and" to the label heading
Page 3: Added "preplant burndown and", "preplant and" and "preplant"
Page 4: Added "preplant" and a weed to table 2
Page 5: Added weed table 3 and updated the label tracking dates

Please we would appreciate a letter confirming the acceptability of this notification. Do not hesitate to contact me if you have any questions. My phone number and email address are provided below.

Sincerely,

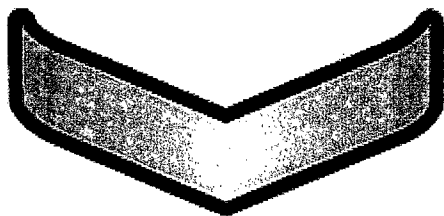


Callista O. Chukwunenyne, Ph.D.
Manager, Product Registrations
Phone: (215) 299-6592
Callista.chukwunenyne@fmc.com

Enclosures:
This letter
EPA Form 8570-1
Cadet Herbicide label with notification changes in red text (2 copies)
Last EPA stamped approved Cadet Herbicide label dated March 10, 2011



APR 29 2011



CADET™

HERBICIDE

For preplant burndown and postemergence control of velvetleaf and other broadleaf weeds in soybeans, field corn, sweet corn, and popcorn

For Use Only by Individuals/Firms Certified As Licensed Pesticide Applicators

EPA Reg. No. 279-3338	EPA Est. XXX
Active Ingredient: (1)	By Wt.
Fluthiacet-methyl	10.3%
Other Ingredients	89.7%
Total:	100.0%

Contains Petroleum Distillate.
Cadet is an emulsifiable concentrate containing 0.91 lb active ingredient per gallon.

**KEEP OUT OF REACH OF CHILDREN
WARNING/AVISO**

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

FIRST AID (2)

If Swallowed: 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: 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: 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 eye. Call a poison control center or doctor for treatment advice.

If Inhaled: 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.

Note to Physician: Contains petroleum distillate, vomiting may cause aspiration pneumonia. Probable mucosal damage may contraindicate the use of gastric lavage.

HOTLINE NUMBER (3)

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-331-3148 for emergency medical treatment information.

FROM FMC

ATTENTION (4)

Although this label may appear similar to the label on a product you may have used, there may be important label differences. Users must read, understand and strictly follow all label directions, precautions and restrictions.

It is the user's responsibility to be sure the product is approved for sale or use on the intended crop and for use in the specific geographic area.

It is the user's responsibility to be aware of and to follow all State or local precautions or restrictions not appearing on this product label.

Prior to purchase or use of this product, read the Conditions of Sale and Limitation of Warranty and Liability on page 2 of this label. If the terms and conditions are unacceptable, return the product immediately in the original and unopened container.

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PRECAUTIONARY STATEMENTS (5)

Hazards to Humans and Domestic Animals

Warning

Causes substantial, but temporary, eye injury. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield or safety glasses). Harmful if swallowed or absorbed through skin. Avoid contact with skin.

Personal Protective Equipment (PPE) (6)

Applicators and other handlers must wear: long sleeved shirt and long pants, chemical resistant gloves such as barrier laminate, butyl rubber ≥ 14 mils, or viton ≥ 14 mils, shoes plus socks, and protective eyewear (goggles or face shield).

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. 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.

Net Contents:

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 the product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards (7)

This pesticide is toxic to fish, aquatic invertebrates, and to some plants at very low concentrations. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to terrestrial and aquatic plants in neighboring areas. Do not contaminate water when disposing of equipment wash waters or rinsate. Do not discharge effluent containing this active ingredient into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

Ground Water Advisory: This chemical and its degradation products has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

Surface Water Advisory: This product and its degradation products may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a high potential for reaching both surface water and aquatic sediment via runoff for several months or longer after application.

AGRICULTURAL USE REQUIREMENTS (8)

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours. (9)

PPE required for early entry into 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 over long-sleeved shirt and long pants
- Socks and chemical resistant footwear
- Wear goggles or face shield
- Waterproof gloves

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY (10)

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.

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. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions beyond the control of FMC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and, to the extent consistent with applicable law, Buyer and User agree to hold FMC and Seller harmless for any claims relating to such factors.

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, FMC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT. Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to

label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) seller or FMC, and, to the extent permitted by applicable law, buyer assumes the risk of any such use.

To the extent consistent with applicable law, FMC or seller shall not 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 FMC 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 FMC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

This Conditions of Sale and Limitation of Warranty and Liability may not be amended by any oral or written agreement.

STORAGE AND DISPOSAL (11)

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

Pesticide Storage

Store product in original container only. Do not contaminate water, food, or feed by storage or disposal. Store in a cool dry place and avoid excess heat. Do not store below 32F degrees.

In Case of Spill

Avoid contact. Isolate areas and keep out animals and unprotected persons.

To Confine Spills.

Dike surrounding area, sweep up spillage, Dispose of in accordance with information given under Pesticide Disposal. Wash spill area with water, absorb with sand, cat litter or commercial clay, sweep up and dispose of in an approved manner. Place damaged container in a large holding container. Identify contents per required hazardous waste labeling regulations.

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 of the nearest EPA Regional Office for guidance.

Container Disposal

Metal or Plastic Containers - Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: (For containers greater than 5 gallons) Empty the remaining contents into application equipment or a mix tank. Fill the container 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. 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 if available, or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. (For containers 5 gallons or less) 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 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 the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available, or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. Do not use recycled metal containers.

Refillable Container - Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

RESISTANCE MANAGEMENT (12)

Some weeds are known to develop resistance to herbicides that have been used repeatedly. While the development of resistance is well understood, it is not easily predicted. Therefore herbicides should be used in conjunction with resistance management strategies in the area. Consult the local or State agricultural advisors for details. If weed resistance should develop in the area, this product used alone may not continue to provide sufficient levels of weed control. If the reduced levels of control cannot be attributed to improper application timing, unfavorable weather conditions or abnormally high weed pressure, a resistant strain may have developed.

To reduce the potential for weed resistance, use this product in a rotation program with other classes of chemistry and modes of action. Always apply this product at the recommended rates and in accordance with the use directions. For optimum performance, scout fields carefully and begin applications when weeds are smaller rather than larger. If resistance is suspected, contact the local or State agricultural advisors.

DIRECTIONS FOR USE (13)

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

Read all Directions for Use carefully before applying.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, POOR COTTON DEFOLIATION, CROP INJURY, OR ILLEGAL RESIDUES.

PRODUCT INFORMATION (14) FOR HERBICIDE USE IN CORN AND SOYBEANS

Cadet is a preplant burndown and postemergence herbicide for control of velvetleaf and other broadleaf weeds in soybeans, field corn, sweet corn, and popcorn (includes field corn, sweet corn, and popcorn grown for seed). Cadet can be applied as a preplant burndown treatment alone or with other herbicides or liquid fertilizer before planting corn or soybeans or can be applied after emergence of the crop and broadleaf weeds. There is a wide application timing window for preplant and postemergence use in soybean and corn. For preplant and postemergence use in soybean the application window ranges from preplant to the full flowering stage. For preplant and postemergence use in corn, the application window ranges from preplant until the corn is 48 inches tall or prior to tasseling, whichever comes first. Refer to Table 2 for a list of the broadleaf weeds controlled.

Cadet will control velvetleaf up to 36 inches tall. Cadet will also control or partially control certain other annual broadleaf weeds. Partial control means significant activity but not always at a level generally considered acceptable for commercial weed control. When tank mixed, Cadet may enhance the performance of other herbicides in the control of certain broadleaf weeds (see Table 2). Cadet does not control grasses. Therefore, if grasses are present at the time of application, Cadet should be mixed with an appropriate postemergence herbicide registered for grass control.

The amount of Cadet to apply and the degree of weed control resulting from a Cadet application depend upon a variety of factors such as weeds present, stage of growth of the weeds, environmental conditions, and growing conditions. Weeds under stress because of lack of moisture, low soil fertility, mechanical or chemical injury, may not be controlled as well as actively growing weeds. Weed death or inhibition can be expected quickly - normally within 48 hours after application.

To be effective, Cadet must contact the weed foliage. Thorough coverage with the spray solution gives the most effective weed control. A large crop and/or weed canopy as well as a dense crop and/or weed canopy can prevent the spray from reaching smaller weeds resulting in reduced control of these smaller weeds.

Soybean and corn are tolerant of Cadet when applied according to label directions. Some bronzing, crinkling, or spotting of crop leaves may occur. Soybean and corn rapidly outgrow these effects and develop normally with no reduction in yield.

Grazing/Feeding and Harvesting Restrictions

Do not graze or feed treated soybean forage or hay to livestock.

Do not harvest or feed corn grain or stover (fodder) until 70 days after the last application of Cadet Herbicide.

Do not harvest or feed field corn forage until 30 days after the last application of Cadet Herbicide.

Do not harvest or feed sweet corn forage or ears until 40 days after the last application of Cadet Herbicide.

Proper Handling Instructions

This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.

Operations that involve mixing, loading rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

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

Do not use flood irrigation to apply or incorporate this product.

This product must be used in a manner which will prevent back siphoning into wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

MIXING AND LOADING INSTRUCTIONS (15)

Spray Additives

An adjuvant or a product containing an adjuvant approved for use on growing crops is required with Cadet for maximum consistent performance.

1. Adjuvants for Cadet Alone

Use a spray adjuvant from one of these classes for optimum performance:

Non-ionic surfactant (NIS) - must have a minimum of 80% of the constituents effective as spray adjuvant at the rate of 1 quart/100 gallons of spray volume (concentration of 0.25%).

Crop Oil Concentrate (COC) - petroleum or vegetable-based containing not less than 12% emulsifier at 1-2 pts./A. The concentration should not exceed 2.5% volume/volume. COC is recommended under conditions of dry soil and low relative humidity.

Silicone-based surfactant - apply at a rate of 1 qt/100 gallons or a spray volume concentration of 0.25% or as specified on the adjuvant label.

In addition to an adjuvant, urea ammonium nitrate (UAN) at 1-2 qts./A or spray grade ammonium sulfate (AMS) at recommended use rates may also be added to the spray solution.

Do not use liquid fertilizer as the total carrier solution.

2. Adjuvants for Cadet in Tank Mixtures with Other Herbicides

When tank mixing with other herbicides, use the adjuvant recommended for use with the tank mix partner. Follow all restrictions and precautions on the tank mix partner's label.

Compatibility Test

A jar test is recommended before mixing to ensure Cadet compatibility with tank mix partners and adjuvants. The following test assumes a spray volume of 25 gallons per acre. For other spray volumes, make appropriate changes in the ingredient rates.

1. Add 1.0 pt. of water to each of 2 one-quart jars with tight lids.

Note: Use the same source of water and the other components in the compatibility test that will actually be tank mixed and applied. It is important that all components are mixed at a temperature similar to the temperature of those used for the actual application.

2. To one of the jars, add 1/4 tsp. or 1.2 milliliters of a compatibility agent approved for this use (1/4 tsp. is equivalent to 2 pt/100 gallons spray). Shake or stir gently to mix.

3. To both jars, add the appropriate amount of herbicide(s). If more than one herbicide is used, add them separately with dry herbicides first, flowables next, and emulsifiable concentrates last. Finally, add the appropriate amount of any adjuvants that will be used. After each addition, shake or stir gently to thoroughly mix. The appropriate amount of herbicides for this test follows:

Dry Herbicides and Adjuvants: For each pound to be applied per acre, add 1.4 tsp. to each jar.

Liquid Herbicides and Adjuvants: For each pint to be applied per acre, add 0.5 tsp. or 2.5 milliliters to each jar.

4. After adding all ingredients, put lids on and tighten, and invert each jar 10 times to mix. Let the mixtures stand 15-30 minutes and look for separation, large flakes, precipitates, gels, heavy oil film on the jar, or other signs of incompatibility. Determine if a compatibility agent is needed in the spray mixture by comparing the two jars. If either mixture separates, but can be remixed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility.

a. Slurry the dry pesticide(s) in water before addition, or

b. Add 1/2 the compatibility agent to the water and the other 1/2 to the emulsifiable concentrate or flowable pesticide before addition to the mixture. If incompatibility is still observed, do not use the mixture.

After compatibility testing is complete, dispose of any pesticide wastes according to the Storage and Disposal section of this label.

How to Mix

1. The spray equipment must be clean before using this product. If it is contaminated with other materials, mixing problems and/or clogging may occur or crop injury may occur.

2. Prepare no more spray mixture than is needed for the immediate application, and do not let the spray mixture stand in the spray tank overnight.

3. Maintain maximum agitation throughout the spraying operation.

4. Water-soluble packets must always be the first material put into the spray tank after water. Water-soluble packets must be completely dissolved and dispersed in clean water only before any other tank mix partners, including adjuvants, micronutrients, or other fertilizers are added to the spray solution. Boron, especially in the form of a micronutrient additive may prevent water-soluble packets from dissolving.

5. Flush the spray equipment thoroughly after each use and apply rinsate to a previously-treated area.

Mixing Cadet Alone

1. Add 1/4-1/2 of the required amount of clean water to the spray or mixing tank.
2. With the agitator running, add the required amount of Cadet to the spray tank. Continue agitation in the spray tank and allow product to fully and uniformly disperse.
3. Add the spray adjuvant and continue agitation while adding the rest of the water.
4. Maintain agitation until all of the mixture has been applied.

Mixing Cadet in Tank Mixtures with Other Herbicides

Cadet is compatible with most commonly used herbicides, insecticides, fungicides, and spray adjuvants. BEFORE MIXING CADET WITH OTHER REGISTERED PRODUCTS FOR ANY USE ON THIS LABEL, READ THE LABEL OF THE TANK MIX PARTNER TO BE CERTAIN IT IS LABELED FOR THE USE ON THE TARGET CROP AND THAT USE PATTERNS ARE COMPATIBLE WITH THOSE OF CADET. When using Cadet in a tank mixture with other pesticides, observe the most restrictive label limitations and precautions for the products being used.

Tank Mixing Steps

1. Add 1/4 -1/2 of the required amount of clean water to the spray or mixing tank.
2. With the agitator running, drop the required number of packets of any products packaged in water-soluble packets into the tank all at once. Continue agitation in the spray tank and allow the packets to completely dissolve and the contents of the packets to fully and uniformly disperse.
3. While maintaining agitation, continue filling the spray tank. When the tank is 3/4 full, add any dry formulation tank mix partners and allow them to completely and uniformly disperse.
4. Add the required amount of Cadet to the spray tank while maintaining agitation. After the product has completely and uniformly dispersed into the tank mix, add any other liquid tank mix partners and allow them to completely and uniformly disperse.
5. Add the proper amount of spray adjuvant and continue agitation while adding the remaining water.
6. Complete filling the tank with clean water and maintain sufficient agitation at all times to insure surface action until the mixture is uniform.
7. To avoid product degradation, apply the Cadet spray mixture within 48 hours of mixing, and do not leave the spray mixture in the tank without continuous agitation.
8. After use, thoroughly clean the sprayer according to this label (see Cleaning Spray Equipment) and any tank mix partner labels.

APPLICATION INFORMATION (16)

Chemigation

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

Aerial Application

Use a minimum of 5 gallons of water per acre.

Take care to ensure that the application does not drift to non-target areas.

Ground Application

Apply Cadet in a minimum of 15 gallons of water/A. If a dense crop and/or weed canopy is present, use up to 40 gallons of water per acre and 50-70 psi pressure at the nozzles.

Note: When using higher nozzle pressures, use extreme caution to avoid spray drift to nearby crops.

Use a pump with enough capacity to maintain a rippling or rolling action in the spray tank. For a uniform spray mixture, agitation during mixing and application is required. Use a boom and nozzle sprayer equipped with the appropriate nozzles and screens and adjusted to provide optimum spray distribution and coverage at the appropriate operating pressures. Use nozzles that produce minimal amounts of fine spray droplets. Thorough coverage is essential for control of susceptible broadleaf weeds. Be aware that overlaps and slower ground speeds while starting, stopping, or turning while spraying may result in excessive application and subsequent crop response.

To avoid injury to sensitive crops, spray equipment used for Cadet applications must be drained and thoroughly cleaned with water plus ammonia before being used to apply other products. See Cleaning Spray Equipment Section 24 on page 5.

Avoid all direct, and/or indirect spray contact with non-target plants. Do not apply near desirable vegetation. Allow adequate distance between target area and desirable plants to minimize exposure. Do not apply when wind speed favors drift beyond the area of treatment.

APPLICATION RATES (17)

Table 1. Cadet application rates for Soybean, Field Corn, Sweet Corn, and Popcorn

Tank mixed with glyphosate or glufosinate	Applied alone or with a labeled grass or broadleaf control
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herbicide	
0.4 fl oz/A - 0.6 fl oz/A (0.0028 lb/A - 0.0042 lb/A)	0.6 - 0.9 fl oz/A (0.0042 - 0.006 lb/A)

Use rates listed above are for control or suppression of weeds listed in Table 2 with Cadet or Cadet tank-mixes.

APPLICATION TIMING (18)

Weed Stage of Growth

Apply Cadet after weeds have emerged and are actively growing, but before the weeds have reached the maximum height listed in Table 2. Application after weeds have reached the listed maximum height for control could result in commercially unacceptable weed control.

Avoid applying Cadet if weeds cannot be evenly covered with the spray or when spray drift is possible. To reduce spray drift, do not apply if wind speed is 10 mph or greater. Avoid overlapping the spray pattern since this may increase chances for crop injury.

Soybean Stage of Growth

Cadet may be applied to soybeans from preplant through the full flowering stage of development. To avoid possible illegal residues, the last application should be made no later than 60 days before harvest. This product requires a pre-harvest interval (PHI) of 60 days.

Field Corn, Sweet Corn, and Popcorn Stages of Growth

Cadet may be applied to corn from preplant to 48 inches tall, but before tasseling.

CULTIVATION (19)

Do not cultivate within 2 days before or 2 days after applying this product.

APPLICATION PRECAUTIONS (20)

1. Do not apply more than 1.25 fl. oz./A of Cadet per cropping season.
2. Do not apply Cadet when crop foliage is wet due to heavy dew, rain, or irrigation moisture.
3. Do not apply if crop is under severe stress due to drought, cold weather, hail, flooding, water-logged or compacted soil, disease, insect damage, nutrient deficiency (especially low nitrogen levels), or other causes.
4. Cadet can be applied in tank mixtures to weeds taller than the maximum heights listed in Table 2 provided the application follows all timing and rate precautions on the tank mix partner's label.
5. Application to weeds that are under severe stress due to drought or to weeds that are taller than the optimum heights listed in Table 2 may result in reduced weed control.
6. Do not irrigate within 4 hours of application of Cadet. Rainfall or irrigation may wash Cadet off of the weeds during this period and reduce performance.
7. Observe all precautions and limitations on the label of each product used in tank mixture with Cadet.
8. Do not let spray solution stand overnight in sprayer or shuttle tanks. Make up only the amount of Cadet spray solution that will be applied in a given period of time. See Cleaning Spray Equipment (23)

WEEDS CONTROLLED (21)

1. Cadet Alone

At the rates and timings listed, Cadet controls the weeds listed in Table 2 when the product is applied alone after emergence of soybean, field corn, sweet corn, or popcorn, and weeds. Cadet only controls certain broadleaf weeds after they emerge and does not provide residual control of weeds that emerge later. Weeds larger than the size indicated in Table 2 may only be partially controlled.

Table 2. Broadleaf Weeds - Application Rate for Cadet Applied Alone with an Adjuvant

Weed Species	0.6 fl oz/A	0.9 fl oz/A
	Maximum height (in.)	Maximum height (in.)
Anoda, spurred (<i>Anoda cristata</i>)	2	4*
Burcucumber (<i>Sicyos angulatus</i>)	2	3
Dayflower, spreading (<i>Commelina diffusa</i>)	2	3
Jimsonweed (<i>Datura stramonium</i>)	2	2
Kochia (<i>Kochia scoparia</i>)	2**	2**
Lambsquarters, common (<i>Chenopodium album</i>)	2	3**
Morningglory, annual (<i>Ipomea spp.</i>)	2	3
Nightshade, black (<i>Solanum nigrum</i>)	2**	2
Nightshade, Eastern black (<i>S. pycnanthum</i>)	2**	2
Pigweed, redroot (<i>Amaranthus retroflexus</i>)	2**	4
Pigweed, smooth (<i>A. hybridus</i>)	2**	4
Pigweed, spiny (<i>A. spinosus</i>)	2**	2
Russian thistle**	2**	2**
Smartweed, Pennsylvania (<i>Polygonum pennsylvanicum</i>)	2**	2
Velvetleaf (<i>Abutilon theophrasti</i>)	36	36
Waterhemp, common (<i>Amaranthus rudis</i>)	2**	2
Waterhemp, tall (<i>A. tuberculatus</i>)	2**	2
Wild Buckwheat (<i>Polygonum convolvulus</i>)	2**	2**

*Count individual leaves except the cotyledons

**Partial control or suppression

2. Cadet in Tank Mixtures with Other Postemergence Herbicides to Improve Broadleaf Weed Control

Cadet may be applied post emergence with glufosinate or glyphosate-based products, or other postemergence broadleaf herbicides approved for use on soybeans and corn. Tank mixing Cadet with other postemergence herbicides may increase the speed of activity and provide control of the weeds listed in Table 2. Cadet will provide enhanced control or suppression of other weeds such as ragweeds and marestalk. Cadet may be tank-mixed with insecticides such as Hero™, or Mustang Max™ and with fungicides. Some populations of weeds may be tolerant or resistant to glyphosate based herbicides. Applying Cadet in a tank-mix with glyphosate on resistant weeds larger than specified in Table 2 may result in unsatisfactory control. Other herbicides in tank-mix with Cadet or separately may be required to achieve adequate control of these resistant biotypes.

Follow all directions, restrictions and precautions on the EPA-approved label for each product in the tank mixture.

3. Cadet in Tank Mixtures for Grass Weed Control

Cadet does not provide grass control, but it can be tank mixed with any postemergence grass herbicide registered for control of grasses in soybeans, field corn, sweet corn, or popcorn. The tank mixture will provide control / partial control of the weeds listed in Table 2 and the grasses listed on the tank mix partner's label. See Table 1 for use rates in mixture with a grass control herbicide.

Mixtures with other herbicides or insecticides may increase crop response over that expected with Cadet alone. Follow all directions, restrictions and precautions on the EPA-approved label for each product in the tank mixture.

4. Cadet Herbicide Preplant Burndown Application Prior to Emergence

Apply Cadet Herbicide at 0.5 – 0.9 oz/A with other registered burndown herbicides or preemergence herbicides in water or liquid fertilizers as a burn-down treatment to control or suppress weeds prior to emergence of corn and prior to cracking in soybeans. Optimum broad spectrum control of annual and perennial weeds requires a tank mix burndown herbicides such as glyphosate, glufosinate, paraquat, 2,4-D, etc. Coverage is essential for good control. For optimum performance make applications to actively growing weeds. Always use the most restrictive label language when applied in a tank mix. When Cadet Herbicide is used as a preplant burndown treatment do not exceed 0.9 oz./A per application and the maximum of 1.25 oz./A per season.

When applied as directed, Cadet Herbicide plus labeled herbicides will provide increased speed of activity and improved control of weeds listed below Table 3.

Table 3

Anoda, spurred	Velvetleaf	*Marestail
Burcucumber	Waterhemp, common	Morningglory, spp.
Dayflower, spreading	Waterhemp, tall	Pennycress, field
Jimsonweed	Wild Buckwheat	Prostrate knotweed
Kochia	Buttercup, smallflower	Purslane, common
Lambsquarters, common	Chickweed	Smartweed, PA
Morningglory, annual	Curled Dock	Star-of-Bethlehem
Nightshade, black	Cutleaf Evening Primrose	Shepherdspurse
Nightshade, Eastern black	Dandelion, common	Tansymustard
Pigweed, redroot	*Fleabane	Thistle, Russian
Pigweed, smooth	Groundsel	Wild buckwheat
Pigweed, spiny	Henbit	Wild hemp
Russian thistle**	Kochia	
Smartweed, Pennsylvania	Lambsquarters, common	

*Glyphosate susceptible marestail and fleabane. For resistant glyphosate weeds, add 2,4-D and/or Authority First or Authority XL for control in soybean or 2,4-D, dicamba or other appropriate herbicides in corn.

SPRAY DRIFT PRECAUTIONS (22)

Do not allow spray to drift onto adjacent land or crops. When drift may occur, do everything possible to reduce spray drift, including:

1. Do not spray if wind speeds are gusty or become 10 mph or greater.

2. Use extreme caution when conditions favor drift (high temperatures, low relative humidity).

3. Do not apply during a temperature inversion. If an inversion is suspected, consult the local weather service before applying Cadet.

4. These practices can further reduce drift:

- a. Use spray nozzles that provide medium-coarse droplets (250-400 microns VMD). Nozzles that produce extremely small droplets are more likely to cause spray drift.
- b. Apply as close to target plants as practical while maintaining a good spray pattern for adequate spray coverage.

CLEANING SPRAY EQUIPMENT (23)

The sprayer must be cleaned before and after use of Cadet. Failure to clean sprayer may result in unsatisfactory results with Cadet or injury to other crops sprayed with the equipment. Refer to the label of the product used previously or tank mixed with Cadet for additional cleaning instructions.

1. Drain sprayer tank, hoses, spray boom and spray nozzles. Use a high-pressure detergent wash to remove physical sediment and residues from the inside of the sprayer tank and thoroughly rinse. Then, thoroughly flush sprayer hoses, spray boom and spray nozzles with a clean water rinse. Remove and clean spray tips and all filters and screens (tank, spray hose and spray tips) separately in the ammonia solution of Step 2.

2. Next, prepare a sprayer cleaning solution by adding three gallons of ammonia (containing at least 3% active) per 100 gallons of clean water or 1 gallon/100 gallons of Valent Tank Cleaner. Prepare sufficient cleaning solution to allow the operation of the spray system for a minimum of 15 minutes to thoroughly flush hoses, spray boom and spray nozzles.

3. Shut down sprayer and keep sprayer system charged with ammonia solution or Valent Tank Cleaner solution left in the spray tank, hoses, spray booms and spray nozzles overnight or during storage.

4. Before using the sprayer, completely drain the sprayer system. Rinse the tank with clean water and flush through the hoses, spray boom, and spray nozzles with clean water. Remove and clean spray tips and all filters and screens (tank, spray hose and spray tip) separately in an ammonia solution.

5. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State, and local regulations and guidelines.

Do not apply sprayer cleaning solutions or rinsate to sensitive crops.

Do not store the sprayer overnight or for any extended period of time with Cadet spray solution remaining in the tank, spray lines, spray boom plumbing, spray nozzles or strainers.

If the sprayer has been stored or idle, purge the spray boom and nozzles with clean water before beginning any application.

Should small quantities of Cadet remain in inadequately cleaned mixing, loading and/or spray equipment, they may be released during subsequent applications potentially causing effects to certain crops and other vegetation. FMC accepts no liability for any effects due to inadequately cleaned equipment.

When Cadet has been tank mixed refer to the label of the product used previously or tank mixed with Cadet for cleaning instructions.

REPLANTING INSTRUCTIONS (24)

If soybeans or corn treated with Cadet is lost due to a natural catastrophe such as hail or frost, soybeans or corn can be replanted immediately, provided this is not restricted on the label of a product used previously or by a product applied in a tank mixture with Cadet.

For control of weeds in the replanted crop, Cadet may be applied postemergence a second time but the total amount of Cadet applied during the cropping season must not exceed 1.25 oz./A.

ROTATIONAL CROPS (25)

Following harvest, any crop may be planted following soybeans or corn treated with Cadet Herbicide alone. There are no crop restrictions.

NOTE: For rotational crop restrictions when Cadet is used in tank mixtures or sequentially with other products, refer to the rotation intervals on the other product label for possible additional restrictions.

LABEL TRACKING INFORMATION (26)

Label Code: 03-17-11

Replaces Label Code: 01-05-11 Red

EPA Approval Date: 03-10-11

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Valent Tank Cleaner - trademark of Valent Corporation

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