

279-3338

9/2/2010

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

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

Callista O. Chukwunenye  
Product Registrations Manager  
FMC Corporation  
1735 Market Street  
Philadelphia, PA 19128

SEP - 2 2010

Subject: Label Amendment – Adding Aerial Application to Corn and Soybeans  
EPA Registration Number: 279-3338  
Product Name: Cadet Herbicide  
Registrant: FMC  
Decision #: 430912

The label amendments referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended are acceptable provided that you make the following changes:

- 1) Add the phrase "Contains Petroleum Distillate" directly under the Ingredient Statement.
- 2) The following text must be added to the existing Note to Physician in the First Aid box:  
"Probable mucosal damage may contraindicate the use of gastric lavage."
- 3) The statements in the First Aid box should be reordered to read as follows:  
"IF SWALLOWED.....  
IF ON SKIN OR CLOTHING.....  
IF IN EYES.....  
IF INHALED....."

NOTE: The IF INHALED statement is not required and is considered optional. This additional safety language may remain on the label or it may be removed from the label.

- 4) The Environmental Hazards statement must read as follows:  
"This product is toxic to fish, aquatic invertebrates, and plants. 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."
- 5) NOTE: The Physical/Chemical Hazards text that reads "Physical/Chemical Hazards (8) Do not use or store near heat or open flame." is not required. This additional text may remain on the label or it may be removed. The Table of Contents should be adjusted accordingly if this section is removed from the label.

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6) The Personal Protective Equipment requirement for early-entry in the Agricultural Use Requirements box must be changed to the following:

- Coveralls over long-sleeved shirt and long pants
- Socks and chemical resistant footwear
- Wear goggles or face shield
- Waterproof gloves

7) Change the “GENERAL INFORMATION” header on page 3 to “PRODUCT INFORMATION”.

8) Add the text in bold to the Container Disposal instructions in the Storage and Disposal box for nonrefillable metal or plastic containers greater than 5 gallons must read:

“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 mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip 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.** Do not cut or weld metal containers.”

9) Add the text in bold to the Container Disposal instructions in the Storage and Disposal box for refillable containers. The text must read as follows:

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.**”

10) NOTE: While the Agency is not requesting additional data at this time, you must maintain data in your files supporting marketing and/or efficacy claims made on the product label. If no substantiating data are available, you must delete the claim from the product label.

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

Products shipped after 18 months from the date on this notice or the next printing of the label whichever occurs first, must bear the new revised label. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA. Your release for shipment of this product constitutes acceptance of these conditions. This label supersedes all previous accepted labels. You must submit one copy of the final printed label before the product is released for shipment. If you have any questions please contact Michael Walsh by phone at (703) 308-2972 or via email at "walsh.michael@epa.gov".

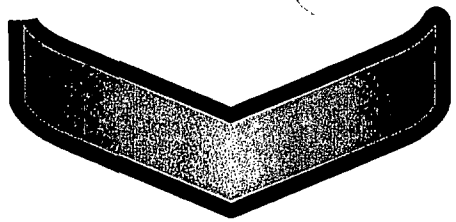
Sincerely,



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

Enclosure

4098



# CADET™

HERBICIDE

FROM **FMC**

**For 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**

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

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 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.

**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 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.

**Note to Physician:** Contains petroleum distillate, vomiting may cause aspiration pneumonia.

### 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.

**ACCEPTED  
with COMMENTS  
In EPA Letter Dated:  
SEP - 2 2010**

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

**Net Contents:**

279-3338

### 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.

## 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. 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.

## Physical/Chemical Hazards (8)

Do not use or store near heat or open flame.

## AGRICULTURAL USE REQUIREMENTS (9)

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. (10)**

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 over long-sleeved shirt and long pants, chemical resistant gloves such as barrier laminate, butyl rubber  $\geq$  14 mils, or viton  $\geq$  14 mils, and shoes plus socks.

## CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY (11)

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 (12)

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. (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 cut or weld metal containers.

**Returnable/Refillable Containers** - 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.

## RESISTANCE MANAGEMENT (13)

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 (14)

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.**

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# GENERAL INFORMATION FOR HERBICIDE USE IN CORN AND SOYBEANS

Cadet is a 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 must be applied after emergence of the crop and broadleaf weeds. There is a wide application timing window for use in soybean and corn. For use in soybean the application window ranges from first trifoliolate to the full flowering stage. For use in corn, the application window ranges from the 2-leaf stage (2 visible collars) 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 90 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 (16)

### 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 rinseate 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**

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OTHER REGISTERED PRODUCTS FOR A 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 (17)**

**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 (18)**

**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 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 (19)**

**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 the first trifoliolate 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 the 2-leaf stage (2 visible collars) to 48 inches tall, but before tasseling.

**CULTIVATION (20)**

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

**APPLICATION PRECAUTIONS (21)**

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 (24)

**WEEDS CONTROLLED (22)**

**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. ptycanthum</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
Smartweed, Pennsylvania ( <i>Polygonum pennsylvanicum</i> )	2**	2
Velvetleaf ( <i>Abutilon theophrasti</i> )	36 <sup>1</sup>	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



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## 2. Cadet in Tank Mixtures with Partner 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 marehail. 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.

## SPRAY DRIFT PRECAUTIONS (23)

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 (24)

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 is used in tank mixed refer to the label of the product used previously or tank mixed with Cadet for cleaning instructions.

## REPLANTING INSTRUCTIONS (25)

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 post-emergence a second time but the total amount of Cadet applied during the cropping season must not exceed 1.25 fl oz/A.

## ROTATIONAL CROPS (26)

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 (27)

Label Code: 02-03-10 Red

Replaces Label Code: 1-26-09 Red

EPA Approval Date:

FMC Corporation  
Agricultural Products Group  
1735 Market Street  
Philadelphia PA 19103  
215-299-6000

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Valent Tank Cleaner - trademark of Valent Corporation

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